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(54) Title: NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES

(57) Abstract: The present invention relates to novel immune/hematopoietic-related polynucleotides and the polypeptides encoded by these polynucleotides herein collectively known as "immune/hematopoietic antigens", and the use of such immune/hematopoietic antigens for detecting immune/hematopoietic-related diseases and/or disorders, particularly the presence of cancer and cancer metastases of cells of hematopoietic origin. More specifically, isolated immune/hematopoietic associated nucleic acid molecules are provided encoding novel immune/hematopoietic associated polypeptides. Novel immune/hematopoietic polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human immune/hematopoietic associated polynucleotides and/or polypeptides. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the immune system or cells and tissues associated with hematopoiesis, including cancers of cells of hematopoietic origin, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compositions for inhibiting the production and function of the polypeptides of the present invention.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Nucleic Acids, Proteins, and Antibodies

[001] This application refers to a "Sequence Listing" that is provided only on electronic media in computer readable form pursuant to Administrative Instructions Section 801(a)(i). The Sequence Listing forms a part of this description pursuant to Rule 5.2 and Administrative Instructions Sections 801 to 806, and is hereby incorporated in its entirety.

[002] The Sequence Listing is provided as an electronic file (PC004PCT_seqList.txt, 76,977,474 bytes in size, created on January 16, 2001) on four identical compact discs (CD-R), labeled "COPY 1," "COPY 2," "COPY 3," and "CRF." The Sequence Listing complies with Annex C of the Administrative Instructions, and may be viewed, for example, on an IBM-PC machine running the MS-Windows operating system by using the V viewer software, version 2000 (see World Wide Web URL: http://www.fileviewer.com).

Field of the Invention

[003] The present invention relates to novel immune system and hematopoietic related (herein "immune/hematopoietic") polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "immune/hematopoietic antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such immune/hematopoietic polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the immune system, including, but not limited to, the presence of cancer and cancer metastases of cells of hematopitic origin. More specifically, isolated immune/hematopoietic nucleic acid molecules are provided encoding novel immune/hematopoietic polypeptides. Novel

immune/hematopoietic polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human immune/hematopoietic polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to hematopoiesis and the immune system, including cancers of cells of hematopoietic origins, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.

Background of the Invention

[004] The immune system is an intricate network composed of cells, tissues and soluble substances that function to protect the body from invasion by foreign substances and pathogens. The major cells of the immune system are white blood cells, including lymphocytes, such as B cells and T cells, and myeloid cells, such as basophils, eosinophils, neutrophils, mast cells, monocytes, macrophages and dendritic cells. The soluble components of the immune system, are molecules (often polypeptides) that are not contained within cells, but rather are found in extracellular fluids such as lymph and blood plasma. Some of the major soluble substances are antibodies, complement proteins, and cytokines.

[005] Cells of the immune system (as well as red blood cells and platelets) are derived from a common precursor stem cell by a process known as hematopoiesis. During fetal life hematopoiesis occurs in the liver and spleen, but in the adult, hematopoiesis occurs mainly in bone marrow. The stem cells from which all blood cells are derived proliferate and differentiate into the various blood cell lineages, (e.g., lymphocytes (B or T cells), myeloid cells (basophils, eosinophils, neutrophils, mast cells, macrophages), platelets, or red blood cells) in response to signals received from other cells (e.g., stromal cells) in the bone marrow microenvironment and also from cytokines. Many of the cytokines that promote the growth and differentiation of

hematopoietic stem cells are known as "colony stimulating factors". For example, interleukin-3 (IL-3, and also known as multi-colony stimulating factor) and granulocyte macrophage colony stimulationg factor (GM-CSF), which are released by activated macrophages T cells, stimulate the production of macrophages and granulocytes (myelopoiesis). Stem cell factor (SCF, c-kit ligand) is a growth factor for primitive lymphoid and myeloid hematopoietic bone marrow progenitor cells expressing the early cell surface marker CD34. Other hematopoeitic cytokines/growth factors include, but are not limited to macrophage colony stimulating factor (M-CSF) and granulocyte colony stimulating factor (G-CSF). Interleukins-1, 6, and 7 have also been shown to function as hematopoietic growth factors/cytokines.

[006] The maturation of lymphocytes has an added layer of complexity in that each individual T and B cell generates a unique antigen specific receptor – a B cell receptor (antibody) in the case of B cells or a T cell receptor in the case of T cells . Because it is possible that B and T cells may generate autoreactive antigen receptors, B and T cells undergo negative selection processes that eliminate autoreactive lymphocytes from the circulating pool of mature lymphocytes. Defects in negative selection may contribute to the occurrence of autoimmune disease. In addition, T cells undergo a process of positive selection in which T cells are selected for their ability to interact with the major histocompatibility antigens. In the thymus, T cells also differentiate into one of two classes, CD4+ T helper (Th) cells or CD8+ cytotoxic T cells. The majority of the maturation and selection procees occurs in the bone marrow for B cells, whereas T cell progenitor cells migrate from the bone marrow to the thymus where they complete their maturation.

[007] Cells of the immune system circulate throughout the body in both the lymph and the blood. Immune cells will leave the circulatory system and enter the tissues by a process known as diapedesis. Immune cells return to the circulatory system via travel in the lymph. Situated along the lymphatic vessels are lymph nodes, which are small nodular aggregates of lymphoid tissues. The architecture of the lymph node is designed to facilitate acquired immune responses, with antigen presenting cells, B cells and T cells all in close proximity. Antigen presenting cells (APCs, e.g., dendritic cells, macrophages, B cells) display antigen on their surface in the form of peptides associated MHC class II molecules to T helper cells. T helper cells with T-cell

receptors specific for the given antigen become activated if they bind to the peptide MHC complexes and receive co-stimulatory signals (e.g, stimulation of CD28 on the Tcell by B7 molecules on the APC). Activated T helper cells proliferate, secreted cytokines, and can stimulate antigen-specific B cells or T cells to become activated. Once activated, cytotoxic T cells proliferate and are able to induce apoptosis of cells expressing specific antigen on their surface as a peptide in the context of MHC Class I molecules. Activated B cells also proliferate and may either enter into germinal center and undergo a process of affinity maturation of their antigen receptor, or differentiate into antibody forming cells (plasma cells) that secrete large quantities of antigen-specific antibody.

[008] Aside from lymphocytes and antigen presenting cells, introduced above, there are several other accessory cells in the immune system including neutrophils, eosinophils, basophils, mast cells, and Natural Killer (NK) cells. NK cells are large granular lymphocytes that have cytotoxic function, especially against cells infected with intracellular pathogens, and may function in the eradication of cancer cells. Neutrophils are phagocytic cells that play a key role in the inflammatory process. Activated mast cells release granules containing histamine and other active agents which are effective against large parasites and also contribute to allergic reactions and asthma. Eosinophils bear Fc receptors for IgG and IgE, and participate in the killing of antibody coated parasites.

[009] The immune system can be classified into the acquired and innate immune system. The cells of the innate immune system (e.g., neutrophils, eosinophils, basophils, mast cells) are not antigen specific and their action is not enhanced by repeated exposure to the same antigen. The cells of the acquired immune system (B and T cells) are antigen specific and repeated exposure of B and T cells to an antigen results in improved immune repsonses (memory responses) produced by these cell types. The cells and products of the acquired immune system can function to focus the action of the innate immune system. For example, eosinophils are not in themselves antigen specific, but as a result of expression of Fc receptors on their surface, their activity can be focused on a specific antigen to which an antibody response has been made by the acquired immune system. For a more extensive review of the immune

system, see *Fundamental Immunology* , 4th edition, ed. William Paul, Lippincott-Raven Pub. (1998).

[010] As illustrated above, an immune response is seldom carried out by a single cell type, but rather requires the coordinated efforts of several cell types. In order to coordinate an immune response, it is necessary that cells of the immune system communicate with each other and with other cells of the body. Communication between cells may be made by cell-cell contact, between membrane bound molecules on each cell, or by the interaction of soluble components of the immune system with cellular receptors. Usually, such receptors are embedded in the plasma membrane, but there also exist a subset of cytoplasmic and nuclear receptors. Communication, or signaling, between cell types may have one or more of a variety of consequences including, activation, proliferation, differentiation, or apoptosis. Activation and differentiation may result in the expression or secretion of polypeptides, or other molecules, which in turn affect the function of other cells and/or molecules of the immune system.

[011] Signaling molecules of the immune system, including not only cellular receptors and ligands, but also the downstream effectors of the receptors and/or ligands, may be described as immunomodulators. In addition, immunomodulators (also known as biological response modifiers) include microbial or synthetic substances and products of activated cells. The mechanism of action of immunomodulators usually involves a complicated interplay of various regulator and effector systems. Immunomodulators may enhance (immunoprophylaxis, immunostimulation), restore (immunosubstitution, immunorestoration) or suppress (immunosuppression, immunodeviation) immunological functions or activities. Immunomodulators may be, for example, cytokines, cytokine receptors, inhibitors of DNA synthesis, intacellular receptors, or components of signal transduction pathways, some of which are described in more detail below:

Cytokines and Cytokine Receptors

[012] Cytokines are small soluble proteins produced by one cell that alter the behavior or other properties of another cell or itself. Thus, by definition, cytokines are immunomodulatory molecules. Many cytokines have multiple biological effects and

are critical to the regulation of the immune response. For a review on cytokines, refer to Chapter 11 of *Cellular and Molecular Immunology* by Abbas et al. (1991).

[013] Immune responses of the acquired immune system can be classified into two broad classes of immune responses: humoral (antibody-mediated) immune responses and cell-mediated immune responses (cell-mediated, i.e., cytotoxic T cell, immune response). Both types of responses require activation of CD4+ T helper cells. Depending on several factors, of which one factor is the cytokine environment, T helper (Th) cells may differentiate into either Th1 cells that promote cell-mediated responses or Th2 cells that promote humoral responses. Th1 cells, which produce interferon (IFN)-gamma, interleukin (IL)-2 and tumor necrosis factor (TNF)-beta, evoke cell-mediated immunity and phagocyte-dependent inflammation. Th2 cells, which produce IL-4, IL-5, IL-6, IL-9, IL-10, and IL-13, evoke strong antibody responses (including those of the IgE class) and eosinophil accumulation, but inhibit several functions of phagocytic cells (phagocyte-independent inflammation). The presence of Th1 or Th2 T cells can have a dramatic effect on the outcome of infection. A Th1 response during the course of infection by the intracellular bacterium *mycobacterium leprae (M. leprae)* is protective, whereas a Th2 response is much less so. Patients that make Th2 response to M. leprae develop full-blown lepromatous leprosy which is eventually fatal. The (mis)regulation of Th1 and Th2 responses have been implicated in the pathogenesis of several diseases, including several organ-specific autoimmune disorders such as Crohn's disease, sarcoidosis, acute kidney allograft rejection, some unexplained recurrent abortions. For a review on Th1 and Th2 subsets, see Romagnani, *Ann. Allergy Asthma Immunol.* 85:9-18 (2000).

[014] From the preceding example it is apparent that cytokines have play key roles on the class and effectiveness of the immune response. It is important to note that cytokines have effects on cell of both the innate and acquired immune systems and are produced by both immune and non-immune cells types.

[015] Other cytokines such as interferon-alpha (secreted by leukocytes) and interferon–beta (secreted by fibroblasts and many other cell types) are cytokines that function to target the immune system towards fighting viral infections. The binding of interferon-alpha and -beta to cells results in a cellular signalling cascade which ultimately results in the inhibition of viral replication in infected cells, the upregulation

of MHC class I expression on cells, and the activation of Natural Killer (NK) cells. Interferons are useful in the diagnosis, treatment and prevention of viral infections and cancers.

Intracellular immunomodulators.

[016] Immunomodulatory proteins are not only cytokines or cytokine receptors. They may also be located intracellularly. For, example they may be intracellular components of a signaling pathway, or even intracellular receptors for certain signaling molecules such as steroids. One example of intracellular immunomodulatory proteins are the immunophilins such as cyclophilin and FK binding protein (FKBP). These immunophilins are peptidyl-prolyl cis-trans isomerases, though their enzymatic ability may be distinct from their role as immunomodulators. When these molecules are bound by the drugs, Cyclosporin A and FK506, respectively, they in turn inhibit the action of activated calcineurin. Calcineurin is a calcium activated serine/threonine kinase which dephosphorylates the transcription factor Nuclear Factor of Activated T cells (NF-AT). Upon dephosphorylation, NF-AT enters the nucleus and induces the transcription of several genes including IL-2. In sum, the immunophilin:drug complexes are able to inhibit clonal expansion of T cells by inhibiting IL-2 synthesis. In addition, FKBP when bound to another drug, rapamycin, can also inhibit the signaling of IL-2 through the IL-2 receptor. FKBP:rapamycin complexes accomplish the inhibition of IL-2 signaling not by binding to calcineurin, but by binding to and inactivating the protein kinases associated with IL-2 signaling resulting in the same outcome, the inhibition of T cell clonal expansion.

[017] Defects in any one or more of the components of the immune system can lead to diseaseor susceptibility to infectious diseases. Two major classes of immune system disorders are autoimmune diseases, and immunodeficiencies. In autoimmunity, the effector mechanisms of the immune system (e.g., antigen specific antibodies and cellular cytotoxicity, e.g., of cytotoxic T cells, or natural killer cells) are misdirected at self rather than foreign antigens resulting is tissue distruction. Diseases classified as or associated with immunodeficiencies are diseases in which the immune system is unable to mount an effective immune response. A classic example of an immunodeficiecy is X-linked agammaglobulinemia in which an intracellular

signalling molecule expressed in B lymphocytes (Bruton's tyrosine kinase) is defective. The loss of function of this kinase prevents B cell maturation, thus patients with X linked agammaglobulinemia do not have mature B cells and are unable to make antibody, and as a result are susceptible to infection.

[018] The discovery of new human immune/hematopoietic polynucleotides, the polypeptides encoded by them, and antibodies that immunospecifically bind these polypeptides, satisfies a need in the art by providing new compositions which are useful in the diagnosis, treatment, prevention and/or prognosis of disorders of the immune system, including, but not limited to, autoimmune disorders, (e.g., systemic lupus erythematosus, rheumatoid arthritis, idiopathic thrombocytopenic purpura and multiple sclerosis) and immunodeficiencies (e.g., X-linked agammaglobulinemia, severe combined immunodeficiency, Wiskott-Aldrich syndrome, and ataxia telangiectasia). Additionally, immune/hematopoietic molecules would be useful as agents to boost immune responsiveness to pathogens or to suppress immune reactions, for example as is necessary in conjunction with organ transplantation.

Summary of the Invention

[019] The present invention relates to novel immune/hematopoietic related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "immune/hematopoietic antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such immune/hematopoietic polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the immune system, including, but not limited to, the presence of cancer and cancer metastases of cells of hematopoietic origin. More specifically, isolated immune/hematopoietic nucleic acid molecules are provided encoding novel immune/hematopoietic polypeptides. Novel immune/hematopoietic polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human immune/hematopoietic polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the immune system or hematopoitic cells or tisues, including cancers of cells of

hematopoietic origin, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.

Detailed Description

Tables

[020] Table 1A summarizes some of the polynucleotides encompassed by the invention (including cDNA clones related to the sequences (Clone ID NO:Z), contig sequences (contig identifier (Contig ID:) and contig nucleotide sequence identifier (SEQ ID NO:X)) and further summarizes certain characteristics of these polynucleotides and the polypeptides encoded thereby. The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA plasmid related to each immune/hematopoietic associated contig sequence disclosed in Table 1A. The second column provides a unique contig identifier, "Contig ID:" for each of the contig sequences disclosed in Table 1A. The third column provides the sequence identifier, "SEQ ID NO:X", for each of the contig polynucleotide sequences disclosed in Table 1A. The fourth column, "ORF (From-To)", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence of SEQ ID NO:X that delineate the preferred open reading frame (ORF) shown in the sequence listing and referenced in Table 1A as SEQ ID NO:Y (column 5). Column 6 lists residues comprising predicted epitopes contained in the polypeptides encoded by each of the preferred ORFs (SEQ ID NO:Y). Identification of potential immunogenic regions was performed according to the method of Jameson and Wolf (CABIOS, 4:181-186 (1988)); specifically, the Genetics Computer Group (GCG) implementation of this algorithm, embodied in the program PEPTIDESTRUCTURE (Wisconsin Package v10.0, Genetics Computer Group (GCG), Madison, Wisc.). This method returns a measure of the probability that a given residue is found on the surface of the protein. Regions where the antigenic index score is greater than 0.9 over at least 6 amino acids are indicated in Table 1A as "Predicted Epitopes." In particular embodiments, immune/hematopoietic associated polypeptides of the invention comprise, or

alternatively consist of, one, two, three, four, five or more of the predicted epitopes described in Table 1A. It will be appreciated that depending on the analytical criteria used to predict antigenic determinants, the exact address of the determinant may vary slightly. Column 7, "Tissue Distribution" shows the expression profile of tissue, cells, and/or cell line libraries which express the polynucleotides of the invention. The first number in column 7 (preceding the colon), represents the tissue/cell source identifier code corresponding to the code and description provided in Table 4. Expression of these polynucleotides was not observed in the other tissues and/or cell libraries tested. For those identifier codes in which the first two letters are not "AR", the second number in column 7 (following the colon) represents the number of times a sequence corresponding to the reference polynucleotide sequence (e.g., SEQ ID NO:X) was identified in the tissue/cell source. Those tissue/cell source identifier codes in which the first two letters are "AR" designate information generated using DNA array technology. Utilizing this technology, cDNAs were amplified by PCR and then transferred, in duplicate, onto the array. Gene expression was assayed through hybridization of first strand cDNA probes to the DNA array. cDNA probes were generated from total RNA extracted from a variety of different tissues and cell lines. Probe synthesis was performed in the presence of ^{33}P dCTP, using oligo(dT) to prime reverse transcription. After hybridization, high stringency washing conditions were employed to remove non-specific hybrids from the array. The remaining signal, emanating from each gene target, was measured using a Phosphorimager. Gene expression was reported as Phosphor Stimulating Luminescence (PSL) which reflects the level of phosphor signal generated from the probe hybridized to each of the gene targets represented on the array. A local background signal subtraction was performed before the total signal generated from each array was used to normalize gene expression between the different hybridizations. The value presented after "[array code]:" represents the mean of the duplicate values, following background subtraction and probe normalization. One of skill in the art could routinely use this information to identify normal and/or diseased tissue(s) which show a predominant expression pattern of the corresponding polynucleotide of the invention or to identify polynucleotides which show predominant and/or specific tissue and/or cell expression. Column 8, "Cytologic Band," provides the chromosomal location of polynucleotides

corresponding to SEQ ID NO:X. Chromosomal location was determined by finding exact matches to EST and cDNA sequences contained in the NCBI (National Center for Biotechnology Information) UniGene database. Given a presumptive chromosomal location, disease locus association was determined by comparison with the Morbid Map, derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM™. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine (Bethesda, MD) 2000. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/). If the putative chromosomal location of the Query overlapped with the chromosomal location of a Morbid Map entry, an OMIM identification number is provided in Table 1A, column 9 labeled "OMIM Disease Reference(s)". A key to the OMIM reference identification numbers is provided in Table 5.

[021] Table 1B summarizes additional polynucleotides encompassed by the invention (including cDNA clones related to the sequences (Clone ID NO:Z), contig sequences (contig identifier (Contig ID:) contig nucleotide sequence identifiers (SEQ ID NO:X)), and genomic sequences (SEQ ID NO:B). The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to each contig sequence. The second column provides the sequence identifier, "SEQ ID NO:X", for each contig sequence. The third column provides a unique contig identifier, "Contig ID:" for each contig sequence. The fourth column, provides a BAC identifier "BAC ID NO:A" for the BAC clone referenced in the corresponding row of the table. The fifth column provides the nucleotide sequence identifier, "SEQ ID NO:B" for a fragment of the BAC clone identified in column four of the corresponding row of the table. The sixth column, "Exon From-To", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence of SEQ ID NO:B which delineate certain polynucleotides of the invention that are also exemplary members of polynucleotide sequences that encode polypeptides of the invention (e.g., polypeptides containing amino acid sequences encoded by the polynucleotide sequences delineated in column six, and fragments and variants thereof).

[022] Table 2 summarizes homology and features of some of the polypeptides of the invention. The first column provides a unique clone identifier, "Clone ID NO:Z",

corresponding to a cDNA disclosed in Table 1A. The second column provides the unique contig identifier, "Contig ID:" corresponding to contigs in Table 1A and allowing for correlation with the information in Table 1A. The third column provides the sequence identifier, "SEQ ID NO:X", for the contig polynucleotide sequences. The fourth column provides the analysis method by which the homology/identity disclosed in the row was determined. Comparisons were made between polypeptides encoded by the polynucleotides of the invention and either a non-redundant protein database (herein referred to as "NR"), or a database of protein families (herein referred to as "PFAM") as further described below. The fifth column provides a description of PFAM/NR hits having significant matches to a polypeptide of the invention. Column six provides the accession number of the PFAM/NR hit disclosed in the fifth column. Column seven, "Score/Percent Identity", provides a quality score or the percent identity, of the hit disclosed in column five. Columns 8 and 9, "NT From" and "NT To" respectively, delineate the polynucleotides in "SEQ ID NO:X" that encode a polypeptide having a significant match to the PFAM/NR database as disclosed in the fifth column. In specific embodiments, polypeptides of the invention comprise, or alternatively consist of, an amino acid sequence encoded by the polynucleotides in SEQ ID NO:X as delineated in columns 8 and 9, or fragments or variants thereof.

[023] Table 3 provides polynucleotide sequences that may be disclaimed according to certain embodiments of the invention. The first column provides a unique clone identifier, "Clone ID NO:Z", for a cDNA clone related to immune/hematopoietic associated contig sequences disclosed in Table 1A. The second column provides the sequence identifier, "SEQ ID NO:X", for contig polynucleotide sequences disclosed in Table 1A. The third column provides the unique contig identifier, "Contig ID", for contigs disclosed in Table 1A. The fourth column provides a unique integer 'a' where 'a' is any integer between 1 and the final nucleotide minus 15 of SEQ ID NO:X, represented as "Range of a", and the fifth column provides a unique integer 'b' where 'b' is any integer between 15 and the final nucleotide of SEQ ID NO:X, represented as "Range of b", where both a and b correspond to the positions of nucleotide residues shown in SEQ ID NO:X, and where b is greater than or equal to a + 14. For each of the polynucleotides shown as SEQ ID NO:X, the uniquely defined integers can be substituted into the general formula of a-b, and used to describe polynucleotides which

may be preferably excluded from the invention. In certain embodiments, preferably excluded from the polynucleotides of the invention (including polynucleotide fragments and variants as described herein and diagnostic and/or therapeutic uses based on these polynucleotides) are at least one, two, three, four, five, ten, or more of the polynucleotide sequence(s) having the accession number(s) disclosed in the sixth column of this Table (including for example, published sequence in connection with a particular BAC clone). In further embodiments, preferably excluded from the invention are the specific polynucleotide sequence(s) contained in the clones corresponding to at least one, two, three, four, five, ten, or more of the available material having the accession numbers identified in the sixth column of this Table (including for example, the actual sequence contained in an identified BAC clone).

[024] Table 4 provides a key to the tissue/cell source identifier code disclosed in Table 1A, column 7. Column 1 provides the key to the tissue/cell source identifier code disclosed in Table 1A, Column 7. Columns 2-5 provide a description of the tissue or cell source. Codes corresponding to diseased tissues are indicated in column 6 with the word "disease". The use of the word "disease" in column 6 is non-limiting. The tissue or cell source may be specific (e.g. a neoplasm), or may be disease-associated (e.g., a tissue sample from a normal portion of a diseased organ). Furthermore, tissues and/or cells lacking the "disease" designation may still be derived from sources directly or indirectly involved in a disease state or disorder, and therefore may have a further utility in that disease state or disorder. In numerous cases where the tissue/cell source is a library, column 7 identifies the vector used to generate the library.

[025] Table 5 provides a key to the OMIM™ reference identification numbers disclosed in Table 1A, column 9. OMIM reference identification numbers (Column 1) were derived from Online Mendelian Inheritance in Man (Online Mendelian Inheritance in Man, OMIM™. McKusick-Nathans Institute for Genetic Medicine, Johns Hopkins University (Baltimore, MD) and National Center for Biotechnology Information, National Library of Medicine, (Bethesda, MD) 2000. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/). Column 2 provides diseases associated with the cytologic band disclosed in Table 1A, column 8, as determined from the Morbid Map database.

[026] Table 6 summarizes ATCC Deposits, Deposit dates, and ATCC designation numbers of deposits made with the ATCC in connection with the present application.

[027] Table 7 shows the cDNA libraries sequenced, tissue source description, vector information and ATCC designation numbers relating to these cDNA libraries.

[028] Table 8 provides a physical characterization of clones encompassed by the invention. The first column provides the unique clone identifier, "Clone ID NO:Z", for certain cDNA clones of the invention, as described in Table 1A. The second column provides the size of the cDNA insert contained in the corresponding cDNA clone.

Definitions

[029] The following definitions are provided to facilitate understanding of certain terms used throughout this specification.

[030] In the present invention, "isolated" refers to material removed from its original environment (e.g., the natural environment if it is naturally occurring), and thus is altered "by the hand of man" from its natural state. For example, an isolated polynucleotide could be part of a vector or a composition of matter, or could be contained within a cell, and still be "isolated" because that vector, composition of matter, or particular cell is not the original environment of the polynucleotide. The term "isolated" does not refer to genomic or cDNA libraries, whole cell total or mRNA preparations, genomic DNA preparations (including those separated by electrophoresis and transferred onto blots), sheared whole cell genomic DNA preparations or other compositions where the art demonstrates no distinguishing features of the polynucleotide sequences of the present invention.

[031] As used herein, a "polynucleotide" refers to a molecule having a nucleic acid sequence encoding SEQ ID NO:Y or a fragment or variant thereof, a nucleic acid sequence contained in SEQ ID NO:X (as described in column 3 of Table 1A) or the complement thereof, a cDNA sequence contained in Clone ID NO:Z (as described in column 1 of Table 1A and contained within a library deposited with the ATCC); a nucleotide sequence encoding the polypeptide encoded by a nucleotide sequence in SEQ ID NO:B as defined in column 6 of Table 1B or a fragment or variant thereof; or a nucleotide coding sequence in SEQ ID NO:B as defined in column 6 of Table 1B or

the complement thereof. For example, the polynucleotide can contain the nucleotide sequence of the full length cDNA sequence, including the 5' and 3' untranslated sequences, the coding region, as well as fragments, epitopes, domains, and variants of the nucleic acid sequence. Moreover, as used herein, a "polypeptide" refers to a molecule having an amino acid sequence encoded by a polynucleotide of the invention as broadly defined (obviously excluding poly-Phenylalanine or poly-Lysine peptide sequences which result from translation of a polyA tail of a sequence corresponding to a cDNA).

[032] As used herein, a "immune/hematopoietic antigen" refers collectively to any polynucleotide disclosed herein (e.g., a nucleic acid sequence contained in SEQ ID NO:X or the complement therof, or cDNA sequence contained in Clone ID NO:Z, or a nucleotide sequence encoding the polypeptide encoded by a nucleotide sequence in SEQ ID NO:B as defined in column 6 of Table 1B, or a nucleotide coding sequence in SEQ ID NO:B as defined in column 6 of Table 1B or the complement thereof and fragments or variants thereof as described herein) or any polypeptide disclosed herein (e.g., an amino acid sequence contained in SEQ ID NO:Y, an amino acid sequence encoded by SEQ ID NO:X, or the complement thereof, an amino acid sequence encoded by the cDNA sequence contained in Clone ID NO:Z, an amino acid sequence encoded by SEQ ID NO:B, or the complement thereof, and fragments or variants thereof as described herein). These immune/hematopoietic antigens have been determined to be predominantly expressed in hematopoietic tissues (e.g., bone marrow, fetal liver, and fetal spleen) or cells and tissues of the immune system (e.g., lymph nodes, spleen, B cells, T cells, monocytes, macrophages, dendritic cells, neutrophils, mast cells, basophils, and eosinophils) including normal or diseased tissues (as shown in Table 1A column 7 and Table 4).

[033] In the present invention, "SEQ ID NO:X" was often generated by overlapping sequences contained in multiple clones (contig analysis). A representative clone containing all or most of the sequence for SEQ ID NO:X is deposited at Human Genome Sciences, Inc. (HGS) in a catalogued and archived library. As shown, for example, in column 1 of Table 1A, each clone is identified by a cDNA Clone ID (identifier generally referred to herein as Clone ID NO:Z). Each Clone ID is unique to an individual clone and the Clone ID is all the information needed to retrieve a given

clone from the HGS library. Furthermore, certain clones disclosed in this application have been deposited with the ATCC on October 5, 2000, having the ATCC designation numbers PTA 2574 and PTA 2575; and on January 5, 2001, having the depositor reference numbers TS-1, TS-2, AC-1, and AC-2. In addition to the individual cDNA clone deposits, most of the cDNA libraries from which the clones were derived were deposited at the American Type Culture Collection (hereinafter "ATCC"). Table 7 provides a list of the deposited cDNA libraries. One can use the Clone ID NO:Z to determine the library source by reference to Tables 6 and 7. Table 7 lists the deposited cDNA libraries by name and links each library to an ATCC Deposit. Library names contain four characters, for example, "HTWE." The name of a cDNA clone (Clone ID NO:Z) isolated from that library begins with the same four characters, for example "HTWEP07". As mentioned below, Table 1A correlates the Clone ID NO:Z names with SEQ ID NO:X. Thus, starting with an SEQ ID NO:X, one can use Tables 1A, 6 and 7 to determine the corresponding Clone ID NO:Z, which library it came from and which ATCC deposit the library is contained in. Furthermore, it is possible to retrieve a given cDNA clone from the source library by techniques known in the art and described elsewhere herein. The ATCC is located at 10801 University Boulevard, Manassas, Virginia 20110-2209, USA. The ATCC deposits were made pursuant to the terms of the Budapest Treaty on the international recognition of the deposit of microorganisms for the purposes of patent procedure.

[034] In specific embodiments, the polynucleotides of the invention are at least 15, at least 30, at least 50, at least 100, at least 125, at least 500, or at least 1000 continuous nucleotides but are less than or equal to 300 kb, 200 kb, 100 kb, 50 kb, 15 kb, 10 kb, 7.5 kb, 5 kb, 2.5 kb, 2.0 kb, or 1 kb, in length. In a further embodiment, polynucleotides of the invention comprise a portion of the coding sequences, as disclosed herein, but do not comprise all or a portion of any intron. In another embodiment, the polynucleotides comprising coding sequences do not contain coding sequences of a genomic flanking gene (i.e., 5' or 3' to the gene of interest in the genome). In other embodiments, the polynucleotides of the invention do not contain the coding sequence of more than 1000, 500, 250, 100, 50, 25, 20, 15, 10, 5, 4, 3, 2, or 1 genomic flanking gene(s).

[035] A "polynucleotide" of the present invention also includes those polynucleotides capable of hybridizing, under stringent hybridization conditions, to sequences contained in SEQ ID NO:X, or the complement thereof (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments described herein), the polynucleotide sequence delineated in columns 8 and 9 of Table 2 or the complement thereof, and/or cDNA sequences contained in Clone ID NO:Z (e.g., the complement of any one, two, three, four, or more of the polynucleotide fragments, or the cDNA clone within the pool of cDNA clones deposited with the ATCC, described herein) and/or the polynucleotide sequence delineated in column 6 of Table 1B or the complement thereof. "Stringent hybridization conditions" refers to an overnight incubation at 42 degree C in a solution comprising 50% formamide, 5x SSC (750 mM NaCl, 75 mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 μg/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65 degree C.

[036] Also contemplated are nucleic acid molecules that hybridize to the polynucleotides of the present invention at lower stringency hybridization conditions. Changes in the stringency of hybridization and signal detection are primarily accomplished through the manipulation of formamide concentration (lower percentages of formamide result in lowered stringency), salt conditions, or temperature. For example, lower stringency conditions include an overnight incubation at 37 degree C in a solution comprising 6X SSPE (20X SSPE = 3M NaCl; 0.2M NaH_2PO_4; 0.02M EDTA, pH 7.4), 0.5% SDS, 30% formamide, 100 ug/ml salmon sperm blocking DNA; followed by washes at 50 degree C with 1XSSPE, 0.1% SDS. In addition, to achieve even lower stringency, washes performed following stringent hybridization can be done at higher salt concentrations (e.g. 5X SSC).

[037] Note that variations in the above conditions may be accomplished through the inclusion and/or substitution of alternate blocking reagents used to suppress background in hybridization experiments. Typical blocking reagents include Denhardt's reagent, BLOTTO, heparin, denatured salmon sperm DNA, and commercially available proprietary formulations. The inclusion of specific blocking reagents may require modification of the hybridization conditions described above, due to problems with compatibility.

[038] Of course, a polynucleotide which hybridizes only to polyA+ sequences (such as any 3' terminal polyA+ tract of a cDNA shown in the sequence listing), or to a complementary stretch of T (or U) residues, would not be included in the definition of "polynucleotide," since such a polynucleotide would hybridize to any nucleic acid molecule containing a poly (A) stretch or the complement thereof (e.g., practically any double-stranded cDNA clone generated using oligo dT as a primer).

[039] The polynucleotide of the present invention can be composed of any polyribonucleotide or polydeoxribonucleotide, which may be unmodified RNA or DNA or modified RNA or DNA. For example, polynucleotides can be composed of single- and double-stranded DNA, DNA that is a mixture of single- and double-stranded regions, single- and double-stranded RNA, and RNA that is mixture of single- and double-stranded regions, hybrid molecules comprising DNA and RNA that may be single-stranded or, more typically, double-stranded or a mixture of single- and double-stranded regions. In addition, the polynucleotide can be composed of triple-stranded regions comprising RNA or DNA or both RNA and DNA. A polynucleotide may also contain one or more modified bases or DNA or RNA backbones modified for stability or for other reasons. "Modified" bases include, for example, tritylated bases and unusual bases such as inosine. A variety of modifications can be made to DNA and RNA; thus, "polynucleotide" embraces chemically, enzymatically, or metabolically modified forms.

[040] The polypeptide of the present invention can be composed of amino acids joined to each other by peptide bonds or modified peptide bonds, i.e., peptide isosteres, and may contain amino acids other than the 20 gene-encoded amino acids. The polypeptides may be modified by either natural processes, such as posttranslational processing, or by chemical modification techniques which are well known in the art. Such modifications are well described in basic texts and in more detailed monographs, as well as in a voluminous research literature. Modifications can occur anywhere in a polypeptide, including the peptide backbone, the amino acid side-chains and the amino or carboxyl termini. It will be appreciated that the same type of modification may be present in the same or varying degrees at several sites in a given polypeptide. Also, a given polypeptide may contain many types of modifications. Polypeptides may be branched, for example, as a result of

ubiquitination, and they may be cyclic, with or without branching. Cyclic, branched, and branched cyclic polypeptides may result from posttranslation natural processes or may be made by synthetic methods. Modifications include acetylation, acylation, ADP-ribosylation, amidation, covalent attachment of flavin, covalent attachment of a heme moiety, covalent attachment of a nucleotide or nucleotide derivative, covalent attachment of a lipid or lipid derivative, covalent attachment of phosphotidylinositol, cross-linking, cyclization, disulfide bond formation, demethylation, formation of covalent cross-links, formation of cysteine, formation of pyroglutamate, formylation, gamma-carboxylation, glycosylation, GPI anchor formation, hydroxylation, iodination, methylation, myristoylation, oxidation, pegylation, proteolytic processing, phosphorylation, prenylation, racemization, selenoylation, sulfation, transfer-RNA mediated addition of amino acids to proteins such as arginylation, and ubiquitination. (See, for instance, PROTEINS - STRUCTURE AND MOLECULAR PROPERTIES, 2nd Ed., T. E. Creighton, W. H. Freeman and Company, New York (1993); POSTTRANSLATIONAL COVALENT MODIFICATION OF PROTEINS, B. C. Johnson, Ed., Academic Press, New York, pgs. 1-12 (1983); Seifter et al., Meth. Enzymol. 182:626-646 (1990); Rattan et al., Ann. N.Y. Acad. Sci. 663:48-62 (1992).)

[041] "SEQ ID NO:X" refers to a polynucleotide sequence described, for example, in Tables 1A or 2, while "SEQ ID NO:Y" refers to a polypeptide sequence described in column 5 of Table 1A. SEQ ID NO:X is identified by an integer specified in column 3 of Table 1A. The polypeptide sequence SEQ ID NO:Y is a translated open reading frame (ORF) encoded by polynucleotide SEQ ID NO:X. "Clone ID NO:Z" refers to a cDNA clone described in column 1 of Table 1A.

[042] "A polypeptide having biological activity" refers to a polypeptide exhibiting activity similar to, but not necessarily identical to, an activity of a polypeptide of the present invention, including mature forms, as measured in a particular biological assay, with or without dose dependency. In the case where dose dependency does exist, it need not be identical to that of the polypeptide, but rather substantially similar to the dose-dependence in a given activity as compared to the polypeptide of the present invention (i.e., the candidate polypeptide will exhibit greater activity or not more than about 25-fold less and, preferably, not more than about tenfold less activity,

and most preferably, not more than about three-fold less activity relative to the polypeptide of the present invention).

[043] Table 1A summarizes some of the immune/hematopoietic associated polynucleotides encompassed by the invention (including contig sequences (SEQ ID NO:X) and clones (Clone ID NO:Z) and further summarizes certain characteristics of these polynucleotides and the polypeptides encoded thereby.

Polynucleotides and Polypeptides

TABLE 1A

Clone ID NO: Z	Contig ID:	SEQ ID NO: X	ORF (From-To)	AA SEQ ID NO: Y	Predicted Epitopes	Tissue Distribution Library code: count (see Table IV for Library Codes)	Cytologic Band	OMIM Disease Reference(s):
HAMHB21	961376	11	17 - 2389	9763		AR089: 3, AR061: 1 H0271: 18, H0556: 9, H0265: 8, H0581: 8, L0761: 4, H0543: 4, H0422: 4, H0656: 3, H0457: 3, L0766: 3, T0002: 2, L0748: 2, H0220: 1, H0650: 1, S0282: 1, H0610: 1, H0069: 1, H0635: 1, H0179: 1, H0416: 1, H0031: 1, H0090: 1, T0041: 1, H0560: 1, H0529: 1, L0667: 1, L0649: 1, L0803: 1, L0659: 1, L0666: 1, S0052: 1, S0216: 1, H0702: 1, H0518: 1, H0521: 1, L0750: 1, H0445: 1, H0423: 1, H0677: 1 and H0506: 1.		
HASAX16	573692	12	138 - 302	9764	Tyr-20 to Ile-33.	H0004: 2		
HASAY74	526312	13	79 - 318	9765		H0004: 1, H0090: 1 and H0543: 1.		
HASAY89	958768	14	125 - 280	9766	Glu-28 to Lys-34.	H0004: 1, L0749: 1 and H0445: 1.		
HASAY94	521835	15	2 - 103	9767	Thr-10 to Asn-22.	H0004: 2		
HBCAL36	931477	16	3 - 440	9768	Glu-26 to Ser-31, Glu-36 to Gln-55, Glu-70 to Asn-82, Ser-93 to Pro-98, Ser-115 to Ser-121.	H0370: 1, H0581: 1 and H0264: 1.		
HBCAL39	964871	17	333 - 491	9769	Arg-1 to Ser-6.	H0255: 2, H0370: 2 and S0053: 1.		
HBCAM74	864366	18	1 - 348	9770	Pro-29 to Ser-37.	H0341: 1, H0370: 1 and		

						L0520: 1.		
HBCAR79	573989	19	186 - 359	9771	Pro-12 to Trp-31.	H0370: 2		
HBCAS69	669802	20	3 - 245	9772		H0370: 1 and H0063: 1.		
HBCAT17	503573	21	48 - 266	9773	Trp-1 to Ser-11.	S0114: 1, H0370: 1, H0075: 1 and L0758: 1.		
HBCAT63	573993	22	1 - 96	9774		H0370: 2	3q26	165215, 222900, 600049
HBCBM52	932514	23	464 - 574	9775		H0370: 1, T0042: 1 and H0423: 1.		
HBCBX12	861018	24	42 - 233	9776	Gly-1 to Gly-6, Pro-23 to Pro-29.	H0271: 2 and H0370: 1.		
HBCBZ05	922800	25	539 - 727	9777		H0370: 2		
HBDAC79	935414	26	1 - 366	9778	Met-4 to Lys-12, Phe-41 to Phe-50.	AR089: 2, AR061: 1 H0556: 2, L0766: 2, S0418: 1, S0442: 1, H0393: 1, H0261: 1, S0222: 1, H0545: 1, H0050: 1, S6028: 1, H0551: 1, H0494: 1, S0144: 1, S0002: 1, H0529: 1, H0521: 1, L0439: 1, L0759: 1, S0308: 1, L0366: 1 and H0506: 1.		
HBDAD04	614849	27	87 - 293	9779		H0063: 1 and S0308: 1.		
HBDAF51	725481	28	275 - 484	9780		H0255: 1, L0756: 1 and S0308: 1.	19q13.4	134790, 191044, 600040, 600138
HBDAF61	864338	29	124 - 306	9781	Leu-49 to Ser-54.	H0486: 1, H0522: 1 and S0308: 1.		
HBJAB59	557972	30	223 - 369	9782	Arg-11 to Ser-28.	H0318: 1 and H0264: 1.		
HBJAC23	529753	31	3 - 176	9783		H0265: 1 and H0318: 1.		
HBJAG72	722723	32	2 - 217	9784	Ser-1 to Pro-7.	H0318: 2		
HBJAI91	677397	33	9 - 308	9785	Lys-38 to Ser-43.	H0318: 2		
HBJAJ75	953840	34	120 - 275	9786		H0318: 4		
HBJAJ85	675904	35	3 - 83	9787		H0305: 1 and H0318: 1.		
HBJAV57	527998	36	2 - 271	9788		H0318: 1 and S0053: 1.		
HBJAY76	527908	37	55 - 300	9789	Lys-3 to Trp-9.	H0318: 2		
HBJAY91	828026	38	17 - 205	9790		H0318: 2		

HBJBM14	781398	39	79 - 189	9791		H0254: 2 and H0318: 1.		
HBJBR94	527903	40	177 - 344	9792		H0318: 2		
HBJBU55	527112	41	137 - 271	9793	Gly-1 to Pro-6.	H0318: 2		
HBJCD43	714390	42	20 - 145	9794		H0318: 2		
HBJCD88	697628	43	158 - 334	9795	Ile-39 to Gln-48.	H0318: 1 and H0445: 1.		
HBJCJ68	823468	44	99 - 182	9796		H0318: 1 and H0445: 1.		
HBJCO81	527711	45	1 - 132	9797	Ser-28 to Arg-44.	H0318: 2		
HBJCR51	847946	46	39 - 185	9798	Pro-29 to Thr-36.	T0002: 1 and H0318: 1.		
HBJCR90	527702	47	206 - 331	9799		S0114: 1 and H0318: 1.		
HBJDL73	531104	48	64 - 171	9800		H0318: 2		
HBJDN14	856216	49	89 - 316	9801	Gln-46 to Gln-54.	H0318: 1 and S0344: 1.		
HBJDO70	752830	50	2 - 148	9802		H0318: 2		
HBJDP32	573846	51	1 - 117	9803	Lys-1 to Phe-6.	H0318: 2		
HBJDP41	494836	52	1 - 153	9804		H0318: 2		
HBJDQ75	847935	53	3 - 209	9805		H0318: 2		
HBJDT05	932302	54	38 - 100	9806		H0318: 2		
HBJDT47	573728	55	18 - 98	9807		H0318: 2		
HBJDW23	919383	56	151 - 420	9808		H0318: 2		
HBJDW36	573847	57	165 - 377	9809	Gln-1 to Lys-15.	H0318: 2		
HBJDX18	795732	58	267 - 557	9810	Lys-19 to Glu-24, Lys-78 to Leu-83.	H0254: 1, H0318: 1 and L0599: 1.		
HBJDX51	716395	59	245 - 391	9811		H0318: 3		
HBJEA22	674872	60	35 - 208	9812	Leu-2 to Asn-15.	H0318: 1 and S0053: 1.		
HBJEA25	589249	61	221 - 466	9813	Asp-15 to Arg-20, Ser-39 to Tyr-44, Gln-54 to Gly-60.	H0318: 1, H0090: 1, L0766: 1, L0748: 1 and L0779: 1.	12	
HBJEA44	973376	62	292 - 459	9814		H0318: 3		
HBJEA65	934994	63	342 - 518	9815	Asp-5 to Trp-12, Arg-18 to Gln-28.	H0318: 2 and L0748: 1.		
HBJEA90	895961	64	271 - 516	9816		AR054: 10, AR051: 2, AR050: 1 H0306: 1, H0318: 1, L0766: 1 and L0776: 1.		
HBJED66	787251	65	10 - 174	9817		H0318: 1 and H0264: 1.		
HBJEE29	888625	66	98 - 244	9818		AR054: 21, AR051: 14,		

						AR050: 14 H0090: 2, H0318: 1 and S0426: 1.		
HBJEE30	531103	67	2 - 229	9819		H0318: 2 and L0766: 1.		
HBJEH70	971161	68	1 - 78	9820		H0255: 1 and H0318: 1.		
HBJEI42	669495	69	140 - 424	9821		H0318: 2		
HBJEJ21	671201	70	80 - 202	9822	Asp-26 to Pro-33.	H0318: 2		
HBJEJ29	693490	71	117 - 425	9823	Arg-2 to Pro-15, Pro-37 to Trp-52.	H0318: 2.		
HBJEJ83	847920	72	115 - 264	9824		H0318: 1, L0766: 1 and H0445: 1.		
HBJEO29	693491	73	2 - 190	9825	Lys-43 to Ser-49.	H0318: 2		
HBJEP15	847843	74	54 - 257	9826		AR051: 21, AR054: 19, AR050: 13 H0318: 2		
HBJEP73	764573	75	105 - 227	9827	Pro-14 to Phe-19.	H0318: 2		
HBJER19	953804	76	101 - 262	9828	Arg-5 to Glu-10, Arg-16 to Gln-24.	H0318: 2		
HBJES44	715846	77	3 - 380	9829		L0747: 2, S0114: 1, H0318: 1, L0770: 1, L0658: 1 and L0790: 1.		
HBJET76	527553	78	419 - 571	9830		H0305: 2, H0402: 1, H0318: 1, L0761: 1 and H0445: 1.		
HBJET94	794343	79	33 - 167	9831		S0140: 2 and H0318: 1.		
HBJEW15	507534	80	554 - 102	9832	Ser-1 to Ser-7, Pro-16 to Cys-21.	H0255: 1 and H0318: 1.		
HBJEZ09	573781	81	101 - 238	9833		S0116: 1 and H0318: 1.		
HBJEZ16	421567	82	157 - 330	9834	Pro-1 to Asn-8.	H0318: 2		
HBJEZ39	690479	83	3 - 155	9835		H0318: 1 and H0445: 1.		
HBJFC51	725818	84	22 - 216	9836		S0116: 1 and H0318: 1.		
HBJFJ53	573806	85	177 - 425	9837		H0318: 2 and L0748: 2.		
HBJFK55	625315	86	137 - 301	9838	Arg-41 to Arg-48.	H0318: 2		
HBJFL49	573970	87	256 - 378	9839		H0318: 2		
HBJFP58	738298	88	1 - 87	9840	Lys-1 to Ser-9, Ser-20 to Pro-26.	H0318: 2		

HBJFV07	953795	89	1 - 135	9841	Ala-12 to Lys-19.	H0318: 2		
HBJFV59	573747	90	167 - 280	9842	Pro-28 to Phe-38.	H0318: 2		
HBJFW10	878778	91	113 - 418	9843	Ala-59 to Val-65, Val-73 to Met-78.	H0318: 2		
HBJFW19	573765	92	143 - 352	9844		H0318: 2		
HBJFW20	573755	93	194 - 328	9845		H0318: 2		
HBJFW50	571351	94	3 - 200	9846		H0318: 2		
HBJFW55	526682	95	2 - 199	9847	Ala-1 to Phe-12.	H0318: 2		
HBJFW68	573766	96	103 - 186	9848	Gly-2 to Glu-7.	H0318: 2		
HBJFW78	571347	97	95 - 340	9849	Asn-4 to Cys-10.	H0318: 2		
HBJFX57	573760	98	2 - 106	9850		H0318: 2		
HBJFX81	529843	99	55 - 240	9851	Asp-41 to Gly-47.	H0318: 1 and H0264: 1.		
HBJFY40	574095	100	276 - 464	9852		H0318: 1 and H0271: 1.		
HBJFZ21	671191	101	1 - 150	9853	Asn-4 to Leu-10, Thr-14 to Ser-23.	H0318: 2		
HBJFZ40	526679	102	1 - 420	9854	Ala-86 to Ala-95.	H0318: 2		
HBJFZ56	507530	103	56 - 256	9855		H0318: 2		
HBJFZ82	799685	104	147 - 338	9856	Arg-16 to Pro-23.	H0318: 3		
HBJGR59	739095	105	10 - 198	9857	Ser-1 to Glu-7.	H0318: 1 and H0444: 1.		
HBJGT72	957668	106	15 - 341	9858	Gly-1 to Gln-7, Cys-16 to Ser-26, Pro-55 to Gln-60, Ala-62 to Ser-71, Ser-82 to Arg-88.	H0457: 2 and H0318: 1.	22q11	104170, 104170, 104170, 115470, 142360, 188400, 188400, 217095, 600850, 601607
HBJGT92	919507	107	275 - 490	9859	Lys-7 to Ser-18, Pro-32 to Glu-51.	AR089: 1, AR061: 1 H0318: 2, L0517: 2 and L0748: 1.		
HBJGU70	864063	108	199 - 375	9860	Pro-26 to Lys-31.	H0318: 1, H0436: 1 and S0308: 1.		
HBJGU78	920821	109	130 - 552	9861	Ser-26 to Lys-42, Glu-62 to Ser-68.	S0116: 1, H0318: 1 and L0769: 1.		
HBJGV17	662725	110	305 - 451	9862	Tyr-6 to Gln-12.	H0255: 1 and H0318: 1.		
HBJGV22	613781	111	3 - 128	9863	Lys-37 to Met-42.	H0318: 2	8p21	152760, 180100, 185430, 602629
HBJGV32	699075	112	100 - 243	9864	Asn-40 to Lys-48.	H0444: 2 and H0318: 1.		

HBJHG04	836184	113	81 - 317	9865	Glu-1 to Ser-7, Gln-55 to Arg-60.	H0318: 2		
HBJHG76	970826	114	265 - 405	9866	Lys-1 to Cys-10.	H0318: 1 and H0436: 1.		
HBJHI28	686278	115	2 - 118	9867	Lys-1 to Phe-16.	S0114: 1 and H0318: 1.		
HBJHJ44	621723	116	55 - 318	9868	Thr-30 to Asp-36, Ala-43 to His-49, Ile-79 to Thr-88.	L0745: 2, H0318: 1 and S0002: 1.		
HBJHM50	724183	117	220 - 348	9869		H0318: 2		
HBJHM57	973257	118	131 - 364	9870		H0318: 2		
HBJHM76	715512	119	25 - 204	9871	Ile-53 to Gly-58.	S0114: 1 and H0318: 1.		
HBJHN52	726570	120	118 - 288	9872		H0318: 2		
HBJHO11	964943	121	283 - 534	9873	Met-41 to Gly-46, Ile-50 to Leu-56, Val-60 to Thr-68.	L0794: 3, S0114: 1, H0318: 1, L0769: 1, L0639: 1 and L0768: 1.		
HBJHO60	975186	122	95 - 373	9874	Lys-17 to Gly-23.	H0318: 2		
HBJHR56	686717	123	359 - 586	9875	Asn-28 to Trp-37.	S0114: 1 and H0318: 1.		
HBJHT32	488736	124	203 - 334	9876		H0318: 2		
HBJHV93	881606	125	162 - 353	9877		H0318: 1, H0521: 1 and L0600: 1.		
HBJHX08	958970	126	423 - 590	9878		H0318: 2		
HBJHZ03	923733	127	305 - 505	9879		S0114: 1, H0306: 1, H0402: 1 and H0318: 1.		
HBJHZ08	958969	128	213 - 386	9880	Lys-14 to Thr-19, Trp-27 to Gly-33.	S0114: 1 and H0318: 1.		
HBJIA19	920881	129	430 - 639	9881		H0318: 2 and L0777: 1.		
HBJIA92	494812	130	189 - 326	9882		H0318: 1 and H0271: 1.		
HBJID21	670642	131	328 - 429	9883	Lys-24 to Gly-30.	H0318: 1, L0519: 1, H0436: 1 and L0752: 1.		
HBJID81	697594	132	6 - 212	9884	Gln-29 to Asn-35, Lys-56 to Pro-65.	H0305: 2, H0589: 1, H0318: 1 and L0766: 1.		
HBJIL11	966701	133	248 - 427	9885		S0114: 1 and H0318: 1.		
HBJIL31	847865	134	259 - 423	9886		H0318: 1 and H0421: 1.		
HBJIL53	971136	135	258 - 473	9887		H0402: 1 and H0318: 1.		
HBJIL75	698405	136	151 - 384	9888		H0318: 1 and H0272: 1.		
HBJIL88	721859	137	223 - 360	9889		S0428: 2, H0318: 1 and		

						S0052: 1.		
HBJIO70	725097	138	286 - 420	9890	Glu-9 to Asn-19.	H0318: 2		
HBJIO79	774812	139	361 - 498	9891		L0766: 2, H0318: 1, L0805: 1, L0776: 1 and H0543: 1.		
HBJIR58	735365	140	156 - 344	9892		H0318: 1 and S0002: 1.		
HBJIY20	669519	141	10 - 162	9893	Ala-1 to Ala-8.	AR061: 6, AR089: 2 H0318: 2		
HBJIY86	725084	142	424 - 651	9894		H0318: 1 and H0444: 1.		
HBJJB02	919379	143	16 - 201	9895	Arg-1 to Arg-17.	H0318: 2		
HBJJB04	878974	144	1 - 264	9896		H0318: 2, L0766: 2 and L0599: 2.		
HBJJB11	965016	145	30 - 266	9897	Ser-5 to Lys-11, Arg-19 to Gly-25, Ser-28 to Glu-33.	H0318: 2		
HBJJB15	659920	146	36 - 413	9898	Glu-12 to Gly-17, Pro-28 to Glu-40, Gln-47 to Arg-52.	H0318: 2 and L0740: 1.		
HBJJB26	681342	147	34 - 147	9899	Gln-1 to Gln-12, Ser-25 to Pro-30.	H0318: 2		
HBJJB40	710873	148	2 - 157	9900	Ser-26 to Gly-35.	H0318: 2 and L0758: 2.		
HBJJB61	741615	149	1 - 309	9901	Cys-20 to Ser-27, Trp-34 to Gly-40.	H0318: 2		
HBJJB62	743096	150	114 - 284	9902	Ser-1 to Trp-7, Ile-18 to Ala-28, Pro-50 to Pro-57.	H0318: 2		
HBJJB74	765406	151	11 - 232	9903	Gly-1 to Trp-10, Arg-40 to Ala-50.	H0318: 2		
HBJJB78	489438	152	218 - 403	9904	Ser-14 to Thr-31, Val-35 to Gln-40, Leu-46 to Tyr-54.	H0318: 2		
HBJJD31	691780	153	81 - 362	9905	Pro-45 to Asp-50.	H0318: 2		
HBJJD90	712982	154	204 - 410	9906	Gln-6 to Gln-12, Tyr-14 to Lys-19, Gln-45 to Phe-50.	H0318: 2		
HBJJH48	721473	155	127 - 306	9907		H0318: 2		
HBJJN13	915977	156	2 - 202	9908	Ser-32 to Glu-37,	H0318: 2		

					Lys-51 to Asn-57.			
HBJJQ29	666221	157	3 - 212	9909	Gln-39 to Ser-47, Thr-55 to Phe-65.	H0318: 2		
HBJJS46	718894	158	3 - 230	9910		H0318: 2 and H0580: 1.		
HBJJU62	664298	159	256 - 429	9911	Ser-35 to Thr-40, Ser-48 to Asp-54.	H0318: 1 and S0002: 1.		
HBJJU81	671611	160	388 - 59	9912	Asp-47 to Phe-66, Ser-105 to Asn-110.	H0318: 1, L0764: 1 and S0053: 1.		
HBJJX04	949592	161	702 - 400	9913		L0761: 2, H0318: 1, H0581: 1 and L0800: 1.		
HBJJX11	847854	162	183 - 1	9914		H0318: 2		
HBJJX44	657242	163	100 - 264	9915		H0556: 1, S0116: 1, H0318: 1, H0591: 1, L0740: 1 and L0605: 1.		
HBJKA75	682250	164	102 - 218	9916		S0116: 1 and H0318: 1.		
HBJKC52	974123	165	102 - 284	9917	Pro-8 to Leu-15, Phe-26 to Gln-32.	H0318: 3		
HBJKC56	735812	166	53 - 301	9918	Leu-3 to Lys-10, Thr-15 to Leu-28.	H0318: 2, L0741: 1 and L0748: 1.		
HBJKC86	974121	167	360 - 518	9919		H0318: 3		
HBJKD68	676330	168	2 - 250	9920	Ser-8 to Cys-13.	H0254: 1 and H0318: 1.		
HBJKE63	744847	169	74 - 193	9921	Pro-1 to Lys-9, Asn-24 to Glu-32.	H0318: 1 and S0052: 1.		
HBJKF06	935033	170	118 - 315	9922		H0318: 2 and L0779: 1.		
HBJKF86	714449	171	1 - 267	9923		H0318: 1 and H0445: 1.		
HBJKI26	489160	172	267 - 392	9924		H0318: 2 and L0749: 1.		
HBJLB78	588085	173	1 - 117	9925		H0318: 1 and H0542: 1.		
HBJLC51	784830	174	113 - 661	9926		H0486: 2, L0598: 2, L0751: 2, L0758: 2, H0318: 1, L0794: 1, L0766: 1, L0804: 1, L0775: 1, L0663: 1 and H0445: 1.		
HBJLD57	683265	175	1 - 171	9927		H0318: 1, L0766: 1 and H0445: 1.		
HBJLD73	765356	176	147 - 347	9928	Lys-26 to Arg-34, Pro-45 to Asn-50.	H0318: 2		

HBJLE82	735748	177	284 - 397	9929		H0318: 2		
HBJLF58	864013	178	52 - 192	9930	Ser-39 to Lys-47.	H0318: 2		
HBJLL07	952791	179	58 - 144	9931		H0318: 2		
HBJLL13	656721	180	215 - 304	9932		H0318: 2		
HBJLL18	665874	181	59 - 244	9933	Lys-1 to Thr-18, Trp-26 to Ser-32.	H0318: 2		
HBJLL28	847840	182	44 - 223	9934	Lys-2 to Ile-8.	H0318: 2		
HBJLL57	734522	183	3 - 116	9935		H0318: 2 and H0551: 1.		
HBJLL68	752810	184	39 - 137	9936		H0318: 2		
HBJLP14	657747	185	164 - 295	9937		H0318: 1 and H0264: 1.		
HBJLR56	843811	186	189 - 719	9938	Gly-1 to Arg-14.	L0362: 3, H0318: 2, L0601: 2 and : 1.	19q13.3-q13.4	113900, 126340, 126391, 130410, 134790, 138570, 160900, 173850, 191044, 258501, 600040, 600138, 602225, 602225
HBJLR82	779004	187	1 - 366	9939	Ala-1 to Gln-6.	H0318: 2	2p23.3	176830, 176830, 182601, 229800, 602134
HBJLV29	823400	188	1 - 387	9940	Gly-19 to Ser-28, Ser-33 to Thr-38.	H0318: 2		
HBJMA30	661665	189	2 - 274	9941	Ser-10 to Lys-17, Arg-44 to Val-72.	H0318: 2, L0766: 1 and L0748: 1.		
HBJMA51	725095	190	101 - 184	9942		H0318: 1 and S0053: 1.		
HBJMC53	726491	191	167 - 310	9943		H0318: 2		
HBJMD71	760155	192	328 - 459	9944		H0318: 1 and H0581: 1.		
HBJMD74	975088	193	53 - 208	9945	Asp-1 to Pro-7.	S0116: 1 and H0318: 1.		
HBJME92	792110	194	32 - 190	9946	Arg-1 to Ser-8, Glu-22 to Asp-30, Ala-38 to Arg-43.	H0318: 2		
HBJMF23	675692	195	29 - 202	9947	Gln-15 to Gly-20.	H0318: 2		
HBJMF30	691179	196	2 - 166	9948		H0318: 1 and H0521: 1.		
HBJMF47	720050	197	1 - 189	9949	Arg-17 to Ala-22.	H0318: 2		
HBJMI76	720047	198	150 - 362	9950	Arg-22 to Lys-29, Leu-46 to Pro-53.	H0318: 2		

HBJMK34	935952	199	109 - 456	9951		H0318: 1, T0042: 1 and L0758: 1.		
HBJMK94	794129	200	80 - 196	9952		L0745: 4, H0486: 1, H0318: 1, L0764: 1 and L0788: 1.		
HBJML28	614911	201	271 - 420	9953		H0318: 2		
HBJML69	864004	202	246 - 419	9954	Thr-18 to Trp-23.	S0114: 1, H0370: 1 and H0318: 1.		
HBJMM72	760833	203	3 - 422	9955	Glu-15 to Ala-24.	L0804: 5, H0656: 3, H0318: 2, L0766: 2, S0114: 1, H0657: 1, H0625: 1, L0761: 1, L0803: 1, L0774: 1, L0655: 1 and H0542: 1.		
HBJMN75	699060	204	202 - 366	9956	Ala-24 to Arg-30.	H0318: 3		
HBJMQ86	576429	205	64 - 351	9957		H0255: 1, H0318: 1 and S0053: 1.		
HBJMR15	964484	206	2 - 136	9958	Lys-37 to Val-43.	H0318: 1 and H0436: 1.		
HBJMR60	740142	207	29 - 337	9959		H0318: 1 and H0444: 1.		
HBJMT52	726480	208	2 - 163	9960		H0318: 1 and S0053: 1.		
HBJMV72	952862	209	282 - 413	9961		H0318: 1 and H0444: 1.		
HBJMW20	669030	210	158 - 319	9962		H0318: 1 and H0445: 1.		
HBJMX04	614930	211	128 - 352	9963	Pro-6 to Glu-19.	H0318: 2		
HBJMX21	933143	212	158 - 367	9964	Glu-26 to Pro-36.	H0318: 1 and H0264: 1.		
HBJMX29	690404	213	217 - 360	9965		H0318: 2		
HBJMX34	703843	214	122 - 289	9966	Ala-30 to Arg-37.	H0318: 2		
HBJNC11	966608	215	165 - 509	9967		H0318: 2		
HBJNC89	786707	216	28 - 189	9968	Ala-1 to Pro-6, Pro-9 to Asp-21.	H0318: 2 and S0216: 1.		
HBJND59	576434	217	152 - 358	9969	Lys-36 to Cys-51, Glu-61 to Val-66.	S0053: 2 and H0318: 1.		
HBMBC18	578887	218	12 - 131	9970		H0421: 2		
HBMBC25	573103	219	1 - 171	9971	Ser-1 to His-11, Ser-43 to Trp-50.	S0116: 1 and H0421: 1.		
HBMBC35	921417	220	1 - 180	9972		S0116: 1 and H0421: 1.		
HBMBC91	506594	221	90 - 389	9973	Cys-20 to Asp-25.	L0748: 3, L0749: 2, S0116: 1 and H0421: 1.		

HBMBE72	760737	222	37 - 426	9974	Trp-3 to Pro-10.	H0341: 1, H0421: 1, L0776: 1, L0789: 1, L0731: 1 and H0542: 1.		
HBMBE84	578869	223	63 - 338	9975	Arg-6 to Asn-13, Leu-58 to Leu-64.	H0421: 2		
HBMBH36	971172	224	96 - 260	9976		H0421: 5		
HBMBH55	732250	225	52 - 219	9977		H0421: 2		
HBMBH91	753141	226	2 - 211	9978	Ala-45 to Asp-50.	H0421: 3		
HBMBI06	935819	227	121 - 267	9979	Gly-19 to Asp-24.	H0421: 1 and H0423: 1.		
HBMBN32	775670	228	82 - 375	9980	Arg-1 to Asn-7.	H0318: 1 and H0421: 1.		
HBMBO20	496513	229	154 - 372	9981	Pro-7 to Phe-14, Glu-46 to Val-53.	H0421: 2		
HBMBQ33	702457	230	134 - 421	9982	Ser-14 to Asn-19.	S0116: 1, H0421: 1 and L0748: 1.		
HBMBQ83	689705	231	93 - 218	9983	Leu-8 to Glu-25.	H0421: 2, L0777: 1 and L0731: 1.		
HBMBS11	967111	232	154 - 315	9984	Arg-35 to Lys-41, Leu-47 to Ser-54.	H0421: 2		
HBMBT85	863938	233	112 - 312	9985		S0116: 1 and H0421: 1.		
HBMBU24	677240	234	1 - 192	9986	Met-25 to Gln-30, Leu-34 to His-40, Thr-46 to Lys-64.	H0421: 2 and S0116: 1.		
HBMBU38	531494	235	142 - 246	9987	Ser-7 to Ser-13.	S0116: 1, H0318: 1, H0421: 1 and S0002: 1.		
HBMBX69	698362	236	1 - 105	9988	Glu-9 to Cys-17.	S0116: 1 and H0421: 1.		
HBMBY27	574803	237	259 - 420	9989		S0116: 2 and H0421: 1.		
HBMBZ71	880580	238	2 - 565	9990	Pro-13 to Pro-18, Ala-25 to Val-31, Thr-71 to Ala-76, Gly-101 to Pro-117, Pro-130 to Arg-135.	L0752: 2, L0758: 2, H0421: 1, S0428: 1 and L0779: 1.		
HBMCA44	716647	239	1 - 516	9991	Ala-15 to Glu-21, Ala-37 to Gly-45.	H0421: 1, H0090: 1, L0750: 1, L0777: 1 and L0758: 1.		
HBMCA58	736084	240	103 - 282	9992	Gln-25 to Ala-34.	H0421: 2		
HBMCA94	793174	241	316 - 432	9993		H0421: 2		
HBMCD26	847826	242	1 - 288	9994	Gly-85 to Arg-92.	S0116: 1, H0421: 1, S0426:		

						1 and L0655: 1.		
HBMCD49	723005	243	133 - 297	9995		H0421: 2		
HBMCE22	674659	244	92 - 274	9996		H0486: 1, H0421: 1, L0805: 1 and L0750: 1.		
HBMCH75	932037	245	190 - 378	9997	Ser-9 to Lys-14.	H0421: 1 and H0576: 1.		
HBMCH88	711318	246	162 - 251	9998	Leu-1 to Asn-10.	H0421: 2, S0134: 1 and H0423: 1.		
HBMCK57	495736	247	425 - 237	9999	Gly-1 to Arg-8, Asp-17 to Cys-23, Phe-25 to Lys-33.	H0556: 1, H0421: 1 and H0090: 1.		
	847828	9547	136 - 321	19299				
HBMCQ14	658484	248	25 - 204	10000	Glu-33 to Ala-40, Ser-44 to Arg-53.	H0421: 2		
HBMCS34	703438	249	386 - 517	10001	Gly-17 to Gly-25.	S0116: 1, H0421: 1, L0803: 1, L0790: 1 and L0754: 1.		
HBMCS77	465070	250	1 - 315	10002	Thr-38 to Ser-45, Pro-63 to Glu-70.	S0116: 1, H0421: 1 and L0748: 1.		
HBMCT67	751643	251	1 - 165	10003		H0421: 2		
HBMCU92	529580	252	96 - 221	10004	Glu-8 to Arg-15, His-28 to Tyr-34.	H0421: 1 and H0179: 1.		
HBMCZ11	967099	253	42 - 248	10005	Leu-15 to Asp-20, Arg-28 to Arg-35.	H0421: 2		
HBMCZ27	683436	254	99 - 344	10006		S0116: 1 and H0421: 1.		
HBMCZ32	855694	255	62 - 190	10007		H0421: 2		
HBMDA51	691116	256	270 - 434	10008		H0421: 2 and H0436: 2.		
HBMDC03	924183	257	275 - 367	10009		H0421: 1 and H0445: 1.		
HBMDC16	888206	258	1 - 360	10010	Thr-2 to Tyr-11, Glu-64 to Ala-72.	AR054: 1, AR050: 1 H0421: 2		
HBMDC88	750274	259	2 - 148	10011		H0421: 2		
HBMDD36	861576	260	107 - 292	10012		S0116: 1 and H0421: 1.		
HBMDD59	739316	261	2 - 88	10013		S0116: 1, H0421: 1 and L0731: 1.		
HBMDE19	657382	262	77 - 241	10014	Pro-41 to Asn-49.	H0421: 2, H0402: 1, L0749: 1 and H0444: 1.		
HBMDF55	952830	263	8 - 358	10015		H0421: 1 and H0576: 1.		

HBMDH79	805554	264	207 - 446	10016	Arg-1 to His-12.	H0486: 1 and H0421: 1.		
HBMDJ11	967046	265	150 - 338	10017	His-23 to Lys-30.	H0421: 2		
HBMDJ36	721673	266	116 - 202	10018	Phe-6 to Asn-13, Asp-20 to Tyr-29.	H0421: 2		
HBMDK12	970684	267	106 - 360	10019	Phe-49 to Leu-55, Pro-63 to Asn-73.	H0421: 2		
HBMDK13	657221	268	228 - 464	10020	Cys-3 to Pro-16.	H0556: 2, H0421: 1, S0426: 1 and L0748: 1.		
HBMDS17	796050	269	64 - 267	10021		S0114: 1 and H0421: 1.		
HBMDS64	746572	270	176 - 406	10022	Ala-3 to Trp-9.	H0402: 1 and H0421: 1.		
HBMSB19	847800	271	126 - 266	10023		S0116: 2		
HBMSK92	531156	272	1 - 126	10024		S0116: 2		
HBMSO15	847795	273	1 - 141	10025		H0589: 2 and S0116: 1.		
HBMSO39	531158	274	3 - 218	10026	Lys-21 to Ala-29.	S0116: 2		
HBMTF79	544889	275	2 - 133	10027		S0116: 1 and H0264: 1.		
HBMTG05	932497	276	8 - 160	10028		S0116: 2		
HBMTM75	574515	277	2 - 310	10029	Pro-13 to Trp-18.	S0116: 2		
HBMTP84	703844	278	77 - 220	10030	Leu-1 to Glu-6, Glu-38 to Ala-48.	H0457: 2, S0116: 1 and H0576: 1.		
HBMTU03	924979	279	69 - 188	10031	Gly-1 to Pro-15, Lys-23 to Asp-34.	S0116: 2		
HBMTW58	806670	280	399 - 593	10032		H0556: 1 and S0116: 1.		
HBMTX29	689834	281	1 - 135	10033	Asp-1 to Asn-10.	S0116: 2		
HBMTX84	537385	282	95 - 337	10034	Trp-56 to Cys-62.	S0116: 2		
HBMTY82	523728	283	94 - 330	10035	Thr-35 to Ala-41.	H0264: 2 and S0116: 1.		
HBMUA62	557828	284	135 - 344	10036	Ser-36 to Leu-41.	S0114: 1 and S0116: 1.		
HBMUD12	574796	285	152 - 319	10037		S0116: 2		
HBMUF60	740606	286	1 - 126	10038	Val-14 to Gly-33.	S0116: 1 and S0308: 1.		
HBMUG57	735024	287	62 - 283	10039		S0116: 1 and H0271: 1.		
HBMUH62	752244	288	9 - 341	10040	Lys-1 to Ser-9.	S0116: 2		
HBMUJ84	531159	289	124 - 237	10041		S0116: 2		
HBMUK59	712591	290	2 - 121	10042	Lys-32 to Arg-37.	S0114: 1 and S0116: 1.		
HBMUN30	693337	291	83 - 217	10043		S0116: 1 and H0521: 1.		
HBMUO10	953933	292	2 - 127	10044		S0116: 2		
HBMUO12	417210	293	1 - 192	10045		S0116: 2		

HBMUO90	928078	294	2 - 265	10046	Asn-3 to Gln-9.	S0116: 1 and S0002: 1.		
HBMUP35	531101	295	80 - 214	10047	Asn-18 to His-24.	S0116: 2		
HBMUT83	793052	296	299 - 111	10048	Phe-20 to Ser-29.	L0766: 2, L0747: 2, L0779: 2, L0777: 2, L0755: 2, H0583: 1, S0116: 1, L0800: 1, L0644: 1, L0626: 1, L0375: 1, L0776: 1, L0792: 1, L0663: 1, L0748: 1, L0758: 1, L0593: 1 and H0423: 1.		
HBMUV03	924916	297	63 - 386	10049	Ser-30 to Leu-38.	S0116: 1, H0457: 1 and H0444: 1.		
HBMUY32	959968	298	1 - 195	10050		S0116: 2		
HBMUZ96	574522	299	76 - 216	10051		S0116: 2		
HBMVA83	529815	300	3 - 287	10052		S0116: 1 and H0264: 1.		
HBMVE14	545170	301	340 - 501	10053		S0116: 1, H0421: 1 and L0362: 1.		
HBMVI79	781686	302	143 - 3	10054	His-3 to Thr-9.	S0116: 1 and S0212: 1.		
HBMVI94	574511	303	55 - 183	10055		S0116: 2		
HBMVO02	920759	304	82 - 261	10056	Gln-52 to Tyr-60.	S0116: 1 and H0486: 1.		
HBMWA31	529678	305	57 - 215	10057	Ala-6 to Gln-11.	S0116: 1, H0264: 1, L0766: 1, L0803: 1, L0790: 1, L0749: 1 and L0731: 1.		
HBMWA57	526863	306	91 - 189	10058	Gln-1 to Gly-10.	S0116: 1 and H0271: 1.		
HBMWI35	706033	307	61 - 207	10059		S0218: 1 and S0116: 1.		
HBMWJ01	959223	308	267 - 395	10060		S0116: 1, L0794: 1, L0766: 1 and H0543: 1.		
HBMWL30	936058	309	3 - 218	10061		S0116: 2		
HBMWL91	529837	310	110 - 214	10062	Gln-21 to Gly-26.	S0116: 1 and H0264: 1.		
HBMWQ85	765109	311	226 - 411	10063	Leu-2 to Gly-8.	S0116: 2		
HBMWV93	574801	312	296 - 451	10064	Ser-6 to Asn-23.	S0116: 1 and H0264: 1.		
HBMWX74	573336	313	152 - 322	10065		S0116: 2		
HBMWZ14	573335	314	2 - 172	10066		S0116: 2		
HBMWZ16	712832	315	144 - 293	10067	Ala-14 to Asp-46.	S0116: 1, H0255: 1 and L0744: 1.		
HBMWZ94	573348	316	1 - 153	10068		S0116: 2		

HBMXE31	573323	317	1 - 312	10069		S0116: 2		
HBMXF47	573324	318	80 - 21	10070	Lys-1 to Ser-6.	S0116: 2		
HBMXG08	959766	319	221 - 418	10071		S0116: 1 and H0521: 1.		
HBMXH68	571361	320	1 - 186	10072	Glu-38 to Arg-44.	S0116: 1 and H0421: 1.		
HBMXL10	968054	321	166 - 399	10073	Gln-20 to Asn-25.	S0116: 2		
HBMXM65	925570	322	1 - 156	10074	Arg-1 to Arg-7, Gly-15 to Gly-20.	S0116: 3 and H0341: 1.		
HBMXN39	705578	323	171 - 362	10075		S0116: 1 and H0271: 1.		
HBMXN69	731274	324	159 - 314	10076	Pro-8 to Asn-16.	S0116: 2		
HBMXO08	959768	325	3 - 185	10077	Ala-17 to Cys-27, Ala-29 to Glu-38.	S0116: 2		
HBMXP90	574802	326	172 - 321	10078		S0116: 2, H0187: 1, L0748: 1, L0439: 1, L0747: 1 and L0757: 1.		
HBMXR44	693123	327	84 - 230	10079		H0556: 1 and S0116: 1.		
HBMXS38	706039	328	132 - 347	10080	Lys-32 to Asp-40.	S0116: 1, L0766: 1, L0664: 1 and H0445: 1.		
HBMXU37	787155	329	32 - 148	10081	Leu-33 to Phe-39.	S0116: 1 and T0041: 1.		
HBMXW13	657241	330	2 - 265	10082	Phe-20 to Val-26.	S0114: 1 and S0116: 1.		
HBMXW73	764440	331	188 - 337	10083	Ala-1 to Gly-10, Phe-34 to Glu-42.	L0599: 2, S0116: 1, L0769: 1 and H0521: 1.		
HBTAE07	953607	332	24 - 263	10084	Leu-7 to Gly-12, Leu-23 to Cys-28, Thr-34 to Ala-58.	S0180: 1, S0052: 1 and L0599: 1.		
HBUAG42	676856	333	3 - 362	10085		H0486: 1 and S0182: 1.		
HBYAA17	924209	334	3 - 152	10086	Ser-34 to Cys-44.	S3016: 2 and S0053: 1.		
HBYAB40	463488	335	92 - 319	10087	Ser-23 to Trp-31.	S3016: 1 and H0422: 1.		
HCFAA38	576731	336	84 - 422	10088	Ser-1 to Gly-10, Arg-15 to Gly-20, Pro-71 to Lys-79.	H0422: 2		
HCFAC84	869259	337	391 - 570	10089	Asn-53 to Thr-60.	H0556: 1 and H0422: 1.		
HCFAF63	689719	338	156 - 266	10090		H0445: 1 and H0422: 1.		
HCFAT85	728254	339	155 - 346	10091	Leu-6 to Gln-12, Ser-53 to Lys-64.	S0053: 1 and H0422: 1.		
HCFAU41	576064	340	141 - 302	10092	Gly-8 to Leu-13,	H0543: 1 and H0422: 1.		

					Asp-32 to Lys-40.			
HCFAU74	576069	341	23 - 136	10093		H0422: 2		
HCFAV46	924086	342	92 - 262	10094	Ile-27 to Lys-33, Thr-40 to Ser-45.	H0305: 2, H0402: 1, L0748: 1 and H0422: 1.		
HCFAW03	924532	343	3 - 188	10095	Asp-1 to Arg-13.	L0738: 1, H0521: 1 and H0422: 1.		
HCFAY27	784950	344	1 - 201	10096	Val-12 to Cys-22, Ala-42 to Ala-48.	S0216: 1, L0748: 1, L0749: 1 and H0422: 1.		
HCFAY33	576058	345	36 - 146	10097		H0422: 2		
HCFBA96	853961	346	2 - 148	10098	Arg-1 to Pro-13.	H0422: 2	11	
HCFBB14	658542	347	59 - 190	10099	Ala-1 to Leu-8, Glu-12 to Arg-17.	H0656: 1, L0592: 1 and H0422: 1.		
HCFBD91	850449	348	3 - 155	10100		H0422: 2		
HCFBF07	953506	349	1 - 99	10101	Ile-2 to Lys-11.	H0422: 2		
HCFBG82	870890	350	161 - 526	10102	Gly-1 to Gly-6, Thr-20 to Trp-25, Met-30 to Phe-35, Cys-63 to Gly-68, Pro-73 to Gly-93.	H0585: 17, H0141: 7, L0804: 4, H0641: 2, L0769: 2, L0800: 2, L0803: 2, L0809: 2, L0731: 2, L0763: 1, L0761: 1, L0773: 1, L0789: 1, L0747: 1, L0777: 1 and H0422: 1.		
HCFBI39	576018	351	89 - 343	10103	Ser-25 to Thr-31.	H0422: 2		
HCFBI80	576669	352	2 - 241	10104	Pro-1 to Val-18.	H0063: 1 and H0422: 1.		
HCFBL08	959617	353	46 - 225	10105	Ser-16 to Tyr-39, Pro-42 to Gly-48.	H0220: 1 and H0422: 1.		
HCFBN62	576126	354	40 - 372	10106	Ser-23 to Lys-29.	H0255: 1, H0436: 1, H0576: 1 and H0422: 1.		
HCFBO39	835926	355	111 - 281	10107	Leu-12 to Met-23.	H0422: 2		
HCFBO76	577218	356	47 - 223	10108	Lys-42 to Asn-53.	S0053: 1 and H0422: 1.		
HCFBR92	576864	357	266 - 472	10109	Gln-29 to Thr-40, Glu-42 to Gly-51.	H0423: 1 and H0422: 1.		
HCFBS25	828076	358	3 - 170	10110		H0556: 1 and H0422: 1.	11	
HCFBS73	506244	359	207 - 401	10111	Ile-7 to Arg-17, Ser-33 to Thr-45.	H0422: 2		
HCFBU01	916703	360	265 - 495	10112	Thr-1 to Glu-10, Phe-19 to Lys-35.	S0114: 2, H0402: 1 and H0422: 1.		

HCFBU38	707620	361	183 - 287	10113	Gly-18 to Ser-29.	H0422: 2		
HCFBU84	573546	362	349 - 459	10114		H0341: 2 and H0422: 1.		
HCFBU85	576010	363	1 - 267	10115		H0422: 2		
HCFBW13	828042	364	253 - 447	10116		H0422: 2	7q21-q22	116860, 126650, 126650, 129900, 133170, 154276, 173360, 173360, 602136, 602136, 602136, 602447
HCFBY02	920340	365	218 - 385	10117	Val-1 to Lys-9.	S0426: 1, L0659: 1, L0731: 1 and H0422: 1.		
HCFCA31	725700	366	44 - 388	10118		L0748: 1, H0543: 1 and H0422: 1.		
HCFCB67	751764	367	61 - 297	10119		H0445: 1 and H0422: 1.		
HCFCC57	577375	368	2 - 268	10120		L0805: 3, H0264: 1, L0629: 1 and H0422: 1.		
HCFCC68	753089	369	1 - 171	10121	Tyr-20 to Lys-27.	H0576: 1 and H0422: 1.		
HCFCC94	670538	370	3 - 146	10122	Asp-1 to Gly-6, Leu-31 to Ala-38, Pro-40 to Arg-45.	H0589: 1 and H0422: 1.		
HCFCD44	883973	371	102 - 410	10123	Leu-15 to Val-20, Pro-22 to Lys-32.	H0305: 2 and H0422: 1.		
HCFCF47	894415	372	2 - 298	10124	Arg-1 to Glu-8.	AR089: 14, AR061: 7 H0341: 1 and H0422: 1.		
HCFCH47	720400	373	140 - 268	10125		S0134: 1 and H0422: 1.		
HCFCJ21	671028	374	72 - 191	10126	Leu-17 to Lys-40.	AR089: 0, AR061: 0 H0422: 2		
HCFCM12	970835	375	386 - 670	10127	Gln-6 to Ala-13, Ser-15 to Ser-20.	L0748: 1, L0439: 1, H0445: 1 and H0422: 1.		
HCFCN66	850422	376	116 - 256	10128		H0422: 2		
HCFCN81	576871	377	146 - 481	10129		H0341: 1, L0439: 1, L0590: 1 and H0422: 1.		
HCFCP14	577277	378	1 - 111	10130		S0114: 1 and H0422: 1.		
HCFCP31	764750	379	63 - 443	10131	Glu-30 to Lys-36, Gly-59 to Leu-65.	H0090: 2, H0486: 1, L0766: 1, L0743: 1, L0751: 1, L0777: 1 and H0422: 1.		

HCFCR76	862682	380	2 - 247	10132	Arg-1 to Thr-6.	S0114: 2 and H0422: 1.		
HCFCX73	575988	381	110 - 256	10133	Leu-22 to Asn-27.	H0422: 2		
HCFDB13	576709	382	79 - 297	10134	Ser-49 to Thr-54.	S0052: 1 and H0422: 1.		
HCFDD48	720938	383	90 - 236	10135	Cys-14 to Arg-22, Lys-25 to Cys-33.	H0444: 1 and H0422: 1.		
HCFDE10	961270	384	156 - 332	10136		H0650: 1 and H0422: 1.		
HCFDE19	671507	385	283 - 564	10137		H0271: 1, L0731: 1 and H0422: 1.		
HCFDE79	575996	386	196 - 327	10138	Thr-15 to Asn-23, Ile-29 to Lys-39.	H0422: 2		
HCFLC28	968304	387	139 - 357	10139	Ile-1 to Ala-8, Ala-47 to Glu-52, Gln-64 to Asp-69.	H0264: 1 and H0423: 1.		
HCFLD28	850564	388	131 - 448	10140	Ile-2 to Lys-7, Pro-13 to Ser-24, Ser-37 to Gln-45, His-55 to Pro-64, Thr-74 to Glu-81.	H0423: 2, S0114: 1, L0790: 1 and H0436: 1.		
HCFLD78	773685	389	422 - 616	10141	Phe-10 to Ser-17, Gly-31 to Ser-42.	L0749: 3, L0743: 2, L0758: 2, H0318: 1, L0770: 1, L0806: 1, L0744: 1, L0748: 1, L0751: 1, L0747: 1, L0777: 1 and H0423: 1.		
HCFLE44	576679	390	63 - 260	10142	Gln-47 to Ala-53.	S0052: 1, H0444: 1 and H0423: 1.		
HCFLE95	945122	391	2 - 277	10143	Pro-1 to Ser-27.	S0344: 1 and H0423: 1.	15q26.1	166800, 210900
HCFLF96	579039	392	2 - 130	10144	Ser-2 to Lys-16.	H0305: 1 and H0423: 1.		
HCFLG84	711243	393	140 - 400	10145	Gly-1 to Ser-10, Pro-18 to Phe-29.	H0255: 1 and H0423: 1.		
HCFLI49	722269	394	236 - 538	10146		H0250: 1, T0042: 1 and H0423: 1.		
HCFLJ40	576068	395	228 - 338	10147		H0423: 2		
HCFLP31	698139	396	85 - 222	10148		S0053: 1 and H0423: 1.		
HCFLR55	576043	397	58 - 255	10149		H0423: 2		
HCFLR83	576054	398	150 - 269	10150		H0423: 2 and H0436: 1.		
HCFLT42	576040	399	1 - 171	10151	Tyr-8 to Gln-14,	H0423: 2 and L0766: 1.		

					Ser-25 to Asp-31.			
HCFLU12	970849	400	154 - 474	10152		H0543: 1 and H0423: 1.		
HCFLW58	964870	401	301 - 444	10153	Thr-38 to Val-45.	L0002: 1, H0063: 1, L0594: 1 and H0423: 1.		
HCFMC42	670519	402	2 - 196	10154	Pro-3 to Ser-8.	H0589: 1, S0426: 1 and H0423: 1.		
HCFMD15	975075	403	214 - 441	10155	Ala-13 to Glu-19.	H0556: 2 and H0423: 1.		
HCFMD23	676003	404	2 - 208	10156	Gly-1 to Ser-15, Pro-36 to Glu-58.	S0344: 1 and H0423: 1.		
HCFME27	576815	405	76 - 318	10157	Pro-16 to Arg-33, Cys-68 to Gly-74.	S0053: 1 and H0423: 1.		
HCFMF47	973243	406	192 - 374	10158	Arg-54 to Lys-61.	H0436: 2 and H0423: 1.		
HCFMF64	773342	407	1 - 687	10159	His-4 to Asn-14, Ser-59 to Lys-75, Arg-77 to Leu-83, Cys-86 to Trp-93, Glu-103 to Leu-117, Glu-123 to Arg-136, Gln-143 to Glu-153.	H0583: 3, H0543: 2, H0650: 1, T0041: 1 and H0423: 1.	1q32	114208, 114208, 119300, 120620, 120620, 120920, 134370, 134370, 134370, 134580, 145260, 150310, 150310, 179820, 191045, 600105, 600759, 601494, 601975
HCFMG14	576063	408	3 - 368	10160	Asp-1 to Arg-9.	H0423: 2		
HCFMH12	970843	409	254 - 403	10161	Asn-16 to Gln-21.	H0423: 2		
HCFMJ70	576096	410	208 - 354	10162		L0532: 1, H0436: 1 and H0423: 1.		
HCFMK25	576081	411	75 - 167	10163	Asn-1 to Asn-8.	H0423: 2		
HCFMK27	576094	412	161 - 292	10164	Leu-31 to Leu-37.	H0423: 2		
HCFMK49	576098	413	3 - 422	10165		H0423: 2		
HCFMK62	576097	414	2 - 241	10166	Arg-1 to Leu-10, Phe-27 to Phe-32, Glu-39 to Ser-45.	H0423: 2		
HCFMK63	506251	415	1 - 216	10167		H0423: 2		
HCFML42	576667	416	311 - 415	10168		S0134: 1 and H0423: 1.		
HCFMM81	506250	417	85 - 222	10169		H0423: 2		
HCFMN07	953522	418	2 - 139	10170	Lys-37 to Val-43.	H0306: 1 and H0423: 1.		

HCFMO64	805822	419	267 - 575	10171		S0278: 1, L0439: 1 and H0423: 1.		
HCFMT62	954213	420	283 - 573	10172		H0254: 2, S0114: 1 and H0423: 1.		
HCFMY85	933017	421	94 - 312	10173	Thr-26 to Gly-33.	H0090: 1 and H0423: 1.		
HCFMZ17	664132	422	1 - 198	10174	Ala-6 to Asp-17, Arg-61 to Trp-66.	H0416: 1 and H0423: 1.	9q31.1	223900, 253800, 253800
HCFNA30	772262	423	1 - 141	10175	Gly-1 to Arg-16.	H0423: 2 and H0445: 1.		
HCFNB62	576446	424	58 - 255	10176	Pro-27 to Trp-34, Glu-55 to Ala-62.	H0423: 2		
HCFNK43	973548	425	119 - 514	10177	Lys-1 to Gln-6, Arg-59 to Phe-66.	H0423: 2		
HCFNO55	576008	426	150 - 362	10178		H0423: 2		
HCFNQ04	615351	427	681 - 896	10179	Glu-32 to Arg-37.	S0144: 1, L0605: 1 and H0423: 1.		
HCFOB11	967196	428	65 - 130	10180		H0423: 2, L0766: 1 and H0521: 1.		
HCFOE38	576005	429	102 - 263	10181		H0423: 2 and H0581: 1.		
HCFOF90	561625	430	207 - 356	10182		H0423: 2, H0069: 1 and L0662: 1.		
HCFOG82	576007	431	64 - 180	10183	Lys-10 to Thr-15, Tyr-18 to Thr-23.	H0423: 2		
HCFOH56	577114	432	116 - 262	10184	Tyr-9 to Met-15, Gln-17 to Ser-22, Pro-43 to Ala-49.	H0423: 2 and L0748: 1.		
HCFOI11	967195	433	28 - 216	10185	Lys-19 to Lys-26.	S0052: 1 and H0423: 1.		
HCFOL96	796104	434	24 - 203	10186	Pro-25 to Gly-33.	H0444: 1 and H0423: 1.		
HCFOO18	575965	435	221 - 394	10187		H0423: 2		
HCFOP42	460824	436	299 - 159	10188	Glu-1 to Gly-14, Arg-38 to Ala-43.	H0477: 1 and H0423: 1.		
	862556	9548	257 - 439	19300	Ser-8 to Ile-13.			
HCFOP46	927654	437	39 - 134	10189		H0423: 2		
HCUAA60	670941	438	4 - 66	10190		H0306: 1 and H0402: 1.		
HCUAD58	738408	439	1 - 180	10191		H0583: 1 and H0306: 1.		
HCUAE70	959686	440	2 - 181	10192		H0402: 2 and H0306: 1.		

HCUAG89	706427	441	236 - 394	10193	Pro-15 to Val-29.	H0306: 2		
HCUAG92	504395	442	1 - 129	10194	Glu-1 to Thr-7.	H0306: 1 and H0057: 1.		
HCUAH15	916651	443	1 - 168	10195		H0306: 1 and H0402: 1.	2q11-q12	129490, 167415, 176947, 600334
HCUAH60	916621	444	1 - 153	10196	Glu-16 to Glu-21, Arg-31 to Leu-39.	H0306: 1 and H0402: 1.		
HCUAH70	574164	445	80 - 265	10197	Lys-6 to Gly-22.	H0306: 2		
HCUAI71	959492	446	169 - 312	10198		H0402: 2 and H0306: 1.		
HCUAK23	676289	447	57 - 185	10199	His-29 to Gly-34.	H0306: 1 and H0305: 1.		
HCUAK49	574256	448	155 - 292	10200	Thr-1 to Tyr-8, Thr-11 to Trp-16.	H0306: 2		
HCUAL07	953876	449	2 - 373	10201	Pro-12 to Arg-18, Gly-20 to Ala-35, Ala-44 to Ala-60, Gly-78 to Ser-84.	H0306: 1, H0402: 1, L0769: 1 and L0780: 1.		
HCUAM57	574375	450	143 - 274	10202		H0306: 2		
HCUAM95	727174	451	1 - 141	10203	Glu-37 to Asp-45.	S0114: 1 and H0306: 1.		
HCUAN44	574154	452	3 - 188	10204	Pro-6 to Trp-16.	H0306: 1 and S0053: 1.		
HCUAN49	577897	453	67 - 156	10205	Lys-7 to Val-12.	L0766: 3, H0556: 1, H0306: 1, H0264: 1, L0779: 1 and L0599: 1.		
HCUAN72	850140	454	3 - 143	10206	Val-20 to Tyr-26.	H0306: 1, H0087: 1 and S0216: 1.		
HCUAO03	924902	455	78 - 299	10207		H0306: 1, H0402: 1 and L0367: 1.		
HCUAO28	850062	456	189 - 347	10208	Leu-19 to Gly-28.	H0306: 1, H0402: 1 and L0599: 1.		
HCUAQ92	506688	457	184 - 291	10209	Pro-8 to Ser-14.	H0306: 2		
HCUAR07	953872	458	57 - 140	10210		H0306: 1 and H0402: 1.		
HCUAT07	953869	459	14 - 424	10211		H0306: 2 and L0599: 1.		
HCUAU02	920694	460	3 - 152	10212	Ser-14 to Trp-20.	H0306: 2		
HCUAU16	574193	461	28 - 135	10213		H0306: 2		
HCUAX57	934633	462	153 - 308	10214		H0306: 1, S0052: 1, S0216: 1, L0438: 1 and L0779: 1.		
HCUBB28	685493	463	81 - 239	10215		H0306: 1 and H0402: 1.		

HCUBB46	577238	464	142 - 282	10216	Lys-15 to Gly-23.	H0402: 2 and H0306: 1.		
HCUBE26	810522	465	1 - 111	10217		H0306: 2		
HCUBE27	574097	466	96 - 344	10218	Pro-42 to Ala-50, Pro-52 to Phe-59.	H0306: 2		
HCUBE55	574203	467	3 - 284	10219	Phe-17 to Arg-28, His-59 to Gln-78.	H0306: 2		
HCUBG79	781681	468	41 - 190	10220	Asn-5 to Asp-21, Ser-44 to Lys-50.	H0306: 2		
HCUBG83	537501	469	20 - 151	10221	Ile-21 to Gly-27.	H0265: 1 and H0306: 1.		
HCUBH45	575720	470	53 - 133	10222	Arg-14 to Lys-27.	H0306: 1 and H0402: 1.		
HCUBI13	862161	471	83 - 226	10223		H0306: 2, H0402: 1, S0053: 1 and L0748: 1.		
HCUBI14	574199	472	14 - 112	10224	Thr-15 to Thr-31.	H0306: 2		
HCUBI15	881192	473	77 - 343	10225	Val-29 to Leu-43.	H0306: 3		
HCUBI38	792415	474	206 - 502	10226	Gly-1 to Gly-17, Pro-20 to Ala-28, Pro-31 to Leu-44.	H0306: 2		
HCUBI43	685512	475	40 - 129	10227	Ala-5 to Cys-14.	H0306: 2		
HCUBI49	961748	476	27 - 95	10228		H0306: 2 and H0657: 1.		
HCUBI74	574235	477	44 - 256	10229	Pro-5 to Gln-20, Glu-30 to Arg-35, Arg-43 to Arg-52.	H0306: 2		
HCUBJ11	967484	478	3 - 272	10230	Arg-1 to Leu-8, Ile-12 to Pro-18, Glu-27 to Trp-39, Gly-66 to Ala-72.	H0306: 1 and H0402: 1.		
HCUBJ42	574265	479	89 - 250	10231	Glu-12 to Gln-20.	H0306: 2		
HCUBK01	917257	480	272 - 421	10232	His-3 to Ala-10, Leu-13 to Arg-18, Gln-20 to Gly-25.	H0306: 2		
HCUBK36	850132	481	107 - 475	10233		H0306: 1 and H0576: 1.		
HCUBK39	577234	482	262 - 504	10234	Pro-29 to Ser-34.	H0306: 1 and H0402: 1.		
HCUBK46	574120	483	143 - 298	10235	Arg-32 to Leu-38.	H0306: 2		
HCUBK49	574122	484	70 - 378	10236	Arg-17 to Asp-23, Cys-44 to His-50, Ile-72 to Glu-86,	H0306: 2		

					Leu-91 to Lys-96.			
HCUBL12	739021	485	2 - 211	10237	Ala-1 to Ser-10, Leu-39 to Glu-54.	H0305: 2, H0306: 1 and H0589: 1.		
HCUBL65	574201	486	80 - 310	10238	His-6 to Thr-13, Pro-23 to Gly-36, Pro-38 to Ser-46.	H0306: 2		
HCUBM86	577291	487	1 - 180	10239	Leu-1 to Arg-8.	H0306: 1 and S0140: 1.		
HCUBN07	953879	488	26 - 118	10240		H0306: 2, H0305: 1 and L0783: 1.		
HCUBN21	577287	489	103 - 345	10241	Gly-10 to Arg-17.	H0306: 1 and H0402: 1.		
HCUBN38	971421	490	29 - 184	10242	Arg-1 to Cys-7, Val-44 to Lys-52.	H0306: 1 and H0402: 1.		
HCUBN66	664536	491	1 - 147	10243	Asp-29 to Ser-40.	H0306: 1 and S0140: 1.		
HCUBO08	959928	492	37 - 219	10244		H0306: 1 and H0402: 1.		
HCUBP69	526757	493	64 - 147	10245	Leu-12 to Pro-28.	H0306: 2		
HCUBP89	850016	494	52 - 318	10246	Thr-72 to Cys-78.	H0306: 1 and H0402: 1.		
HCUBQ76	575352	495	71 - 166	10247		H0306: 1 and H0305: 1.		
HCUBQ85	967074	496	1 - 219	10248	Ile-11 to Ala-18, Ser-41 to Arg-48.	H0306: 4, H0402: 2 and S0052: 1.		
HCUBS58	522378	497	308 - 180	10249	Phe-4 to Cys-9, Asn-32 to Ser-42.	H0306: 1, L0622: 1 and H0057: 1.		
HCUBS72	577286	498	50 - 199	10250	Asn-26 to Gly-38.	H0306: 1 and H0402: 1.		
HCUBT02	920682	499	131 - 283	10251		H0306: 2		
HCUBT94	574239	500	295 - 540	10252	Glu-18 to Phe-28, Pro-37 to Asn-42, Ser-49 to Cys-59.	H0402: 2, L0748: 2, H0306: 1, S0002: 1, L0749: 1 and L0755: 1.		
HCUBV04	615547	501	31 - 159	10253	Lys-31 to Asn-37.	H0306: 1 and H0402: 1.		
HCUBX57	506518	502	133 - 360	10254	Pro-32 to Leu-39.	H0306: 1 and H0402: 1.		
HCUBZ57	529702	503	144 - 335	10255		H0306: 2		
HCUBZ86	694720	504	2 - 160	10256		H0306: 1 and H0402: 1.		
HCUBZ88	574096	505	158 - 310	10257	Pro-33 to Asp-41, Pro-43 to Lys-51.	H0306: 2, H0402: 1, L0768: 1 and L0758: 1.		
HCUBZ96	506585	506	3 - 305	10258	Arg-1 to Asn-7, Pro-39 to Gly-52.	H0306: 1 and S0052: 1.		
HCUCB20	574189	507	171 - 374	10259	Thr-11 to Gly-18.	H0306: 2		

HCUCC20	573901	508	127 - 288	10260	Glu-31 to Cys-39.	H0306: 2		
HCUCC78	577129	509	29 - 304	10261		H0306: 1 and H0402: 1.		
HCUCC96	796530	510	2 - 241	10262	Gly-10 to Ala-15, Val-46 to Val-51, Thr-70 to Lys-77.	H0306: 1 and H0402: 1.		
HCUCD26	574098	511	2 - 175	10263	Glu-10 to Thr-15, Ala-29 to Ile-47.	H0306: 2		
HCUCD82	780047	512	151 - 297	10264	Glu-9 to Arg-14.	H0306: 2		
HCUCG21	671210	513	93 - 386	10265	Pro-12 to Ser-19.	H0306: 1 and H0416: 1.		
HCUCI43	715488	514	19 - 171	10266	Gly-12 to Gly-28.	S0052: 2 and H0306: 1.	1p33-p34	120260, 130500, 133200, 138140, 168360, 171760, 171760, 176100, 176100, 178300, 230000, 246450, 255800
HCUCJ90	967501	515	17 - 79	10267		H0306: 2		
HCUCT08	959910	516	2 - 286	10268		H0306: 1 and S0216: 1.		
HCUCT48	720905	517	128 - 259	10269	Glu-16 to Cys-24.	H0306: 2		
HCUCV13	574121	518	3 - 143	10270	Gln-1 to Trp-9.	H0306: 2		
HCUCV20	694398	519	264 - 67	10271		H0402: 2 and H0306: 1.		
HCUDA38	862089	520	96 - 356	10272		H0402: 2		
HCUDB13	578712	521	70 - 177	10273	Leu-1 to Cys-7, Leu-19 to Thr-28.	H0402: 2 and L0771: 1.		
HCUDC45	576566	522	128 - 361	10274	Pro-14 to Gly-22.	H0402: 2		
HCUDC79	576577	523	21 - 155	10275	Ser-38 to Leu-43.	H0402: 2		
HCUDD19	959706	524	149 - 583	10276	Gln-1 to Arg-9.	H0402: 2		
HCUDD43	850103	525	2 - 199	10277		H0402: 2		
HCUDD57	734883	526	77 - 385	10278	Arg-10 to Arg-20, Gly-26 to Trp-32, Ser-51 to Gly-56, Pro-68 to Ser-77.	H0402: 2 and L0748: 1.		
HCUDE23	953868	527	16 - 138	10279	Glu-7 to Asp-17.	H0402: 3, H0306: 1, L0717: 1 and L0754: 1.		
HCUDE38	850076	528	3 - 266	10280	His-1 to Trp-8, Pro-43 to Ala-48,	H0402: 2		

					Leu-71 to Phe-76.			
HCUDE47	861150	529	389 - 802	10281	Phe-13 to Ala-30, Thr-40 to Lys-45, Ser-57 to Pro-73, Lys-121 to Cys-138.	L0742: 7, L0439: 4, L0777: 2, H0341: 1, H0402: 1, H0439: 1, L0641: 1, L0803: 1, L0789: 1, S0216: 1 and L0741: 1.		
HCUDF26	676949	530	121 - 282	10282	Gly-23 to Val-29, Gln-32 to Asn-39.	H0402: 1 and H0318: 1.		
HCUDF33	577224	531	176 - 307	10283	Ile-31 to Gly-41.	L0748: 2, L0749: 2, H0306: 1 and H0402: 1.		
HCUDF90	958449	532	2 - 214	10284	Ser-13 to Ile-18.	H0402: 1, H0305: 1 and H0589: 1.		
HCUDH64	717894	533	1 - 405	10285	Lys-1 to Arg-11, Ala-34 to Arg-66, Gly-72 to Gly-79.	H0402: 2		
HCUDH84	713524	534	30 - 269	10286	Ala-8 to Gly-13, Gly-32 to Gly-38.	H0402: 1 and H0444: 1.		
HCUDJ91	861025	535	77 - 316	10287	Glu-5 to Ile-15, Ala-24 to Val-30.	H0402: 2 and H0179: 1.		
HCUDL94	915821	536	2 - 367	10288		H0457: 2, H0402: 1, L0766: 1 and L0659: 1.		
HCUDM23	462283	537	59 - 298	10289	Val-70 to Leu-75.	H0402: 1 and S0052: 1.		
HCUDM66	506522	538	209 - 379	10290		H0306: 1 and H0402: 1.		
HCUDN09	850101	539	466 - 353	10291		H0402: 2, H0139: 1, H0486: 1 and L0789: 1.		
HCUDN14	862119	540	181 - 414	10292		H0402: 2		
HCUDP19	578721	541	167 - 358	10293	Met-9 to Lys-34.	H0402: 2		
HCUDP23	783051	542	141 - 458	10294	Lys-27 to Arg-32.	H0402: 2		
HCUDP27	725155	543	101 - 331	10295		H0306: 1 and H0402: 1.		
HCUDP82	578720	544	1 - 351	10296		H0402: 2		
HCUDQ61	839959	545	124 - 330	10297	Glu-25 to Lys-41.	H0402: 2		
HCUDS61	578705	546	2 - 262	10298	Lys-81 to Arg-87.	H0402: 2 and L0177: 1.		
HCUDT62	747131	547	66 - 302	10299		H0402: 2		
HCUDT65	915742	548	1 - 1857	10300		AR089: 1, AR061: 0 H0402: 1, L0017: 1, H0635: 1 and L0492: 1.		

HCUDW37	859268	549	497 - 297	10301	Thr-1 to Lys-11.	H0402: 1 and S0002: 1.		
HCUDW74	576240	550	244 - 116	10302	Lys-1 to Trp-6, Gln-23 to Cys-32, Pro-35 to Pro-43.	H0402: 2		
HCUDX05	951165	551	1 - 51	10303		H0402: 1 and H0305: 1.		
HCUDX14	571370	552	83 - 319	10304		S0114: 1 and H0402: 1.		
HCUDZ25	678365	553	98 - 307	10305	Arg-6 to Arg-12, Ala-42 to Lys-70.	H0402: 2		
HCUEA58	579029	554	96 - 317	10306	Glu-1 to Gly-6, Pro-26 to Cys-39.	H0306: 1, H0402: 1 and H0416: 1.		
HCUEA63	745183	555	103 - 234	10307	Arg-14 to Glu-26, Leu-36 to Glu-42.	H0402: 2		
HCUEA72	713040	556	1 - 255	10308	Gly-1 to Gly-6, Val-41 to Pro-46.	H0402: 2 and L0648: 1.		
HCUEB62	579058	557	3 - 287	10309	Thr-81 to Trp-91.	H0306: 1 and H0402: 1.		
HCUEC06	935769	558	107 - 3	10310		H0402: 2		
HCUEC78	850066	559	19 - 195	10311	Pro-10 to Asp-21, Cys-45 to Thr-51.	H0402: 2		
HCUED04	615410	560	67 - 330	10312	Cys-7 to Arg-18, Lys-34 to Ser-43, Pro-48 to Ile-55.	H0402: 2		
HCUED66	576573	561	37 - 324	10313	Ser-11 to Lys-17, Arg-19 to Thr-29.	H0402: 2		
HCUEE04	653118	562	1 - 303	10314		H0402: 2		
HCUEE29	578709	563	36 - 206	10315		H0402: 2		
HCUEE41	578715	564	3 - 221	10316	Phe-1 to Trp-10.	H0402: 2		
HCUEE63	745184	565	3 - 113	10317	His-1 to Arg-12, Gly-25 to Thr-37.	H0402: 2		
HCUEE66	578702	566	47 - 211	10318		H0402: 2		
HCUEE83	578703	567	1 - 171	10319	Gly-1 to Lys-11.	H0402: 2		
HCUEF90	578714	568	2 - 148	10320	His-7 to Pro-25.	H0402: 2		
HCUEG58	784414	569	23 - 127	10321	Pro-7 to Asn-25.	H0402: 2		
HCUEG90	578745	570	20 - 115	10322		H0402: 3		
HCUEJ55	959552	571	19 - 111	10323		H0402: 2		
HCUEJ69	757657	572	122 - 400	10324		H0402: 1 and H0271: 1.		

HCUEK37	964869	573	135 - 344	10325	Ser-9 to Trp-15, Gln-22 to Tyr-35, Lys-41 to Gly-51.	H0402: 3		
HCUEL28	706456	574	101 - 232	10326		H0306: 1 and H0402: 1.		
HCUEL91	576568	575	2 - 118	10327	Ala-1 to Arg-29.	H0402: 2 and L0667: 1.		
HCUEM23	576379	576	138 - 386	10328	Glu-1 to Tyr-8.	H0402: 2		
HCUEM35	861545	577	86 - 319	10329	Pro-48 to Ala-69.	H0402: 2		
HCUEM62	576575	578	1 - 195	10330	Phe-5 to Ala-10, Gly-58 to Ser-65.	H0402: 2		
HCUEN34	706452	579	20 - 247	10331	Pro-10 to Arg-15.	H0402: 2		
HCUEN58	738225	580	221 - 436	10332	Arg-19 to Ile-30.	H0402: 1 and S0002: 1.		
HCUEO17	932118	581	99 - 242	10333		H0402: 4		
HCUEO30	769203	582	2 - 262	10334		H0402: 2		
HCUEO31	576551	583	55 - 171	10335		H0402: 2		
HCUEO41	576524	584	3 - 461	10336	His-1 to Ser-7, Pro-29 to Gln-34, Lys-64 to Pro-76, Glu-83 to Asn-99, Glu-101 to Arg-109.	H0402: 2		
HCUEO62	578713	585	271 - 399	10337	Gly-18 to Arg-28.	H0402: 2		
HCUEO79	850090	586	3 - 167	10338	Pro-30 to Arg-35.	H0306: 1, H0402: 1, L0623: 1 and S0052: 1.		
HCUEP01	913675	587	215 - 406	10339	Met-47 to Gly-58.	S0052: 2, H0341: 1, H0402: 1 and S0428: 1.		
HCUEQ37	881486	588	81 - 362	10340	Gln-13 to Arg-34.	H0402: 3, H0306: 1 and H0486: 1.		
HCUEQ56	751410	589	3 - 137	10341	His-1 to Gly-7, Gly-21 to Gly-29.	H0402: 1, L0776: 1, S0428: 1 and H0445: 1.		
HCUES29	579033	590	107 - 229	10342		H0402: 5, H0486: 2 and H0306: 1.		
HCUES34	850096	591	57 - 230	10343	Thr-43 to Lys-58.	H0402: 3		
HCUES93	576498	592	54 - 356	10344	Gly-22 to Leu-27.	H0402: 2		
HCUET13	657258	593	3 - 173	10345	Asp-37 to Leu-42, Pro-44 to Pro-56.	L0749: 3, H0402: 2, L0761: 2, L0803: 1 and L0790: 1.		
HCUET27	506339	594	3 - 158	10346		H0306: 1 and H0402: 1.		
HCUEU10	964857	595	1 - 105	10347		H0306: 1 and H0402: 1.		

HCUEU20	970780	596	58 - 255	10348	Glu-25 to Gly-36, Asp-59 to Ser-64.	H0402: 3		
HCUEV08	959670	597	198 - 353	10349	Gln-3 to Ser-9.	H0402: 2		
HCUEV17	905316	598	801 - 1223	10350	Lys-43 to Ser-51.	AR051: 9, AR050: 2, AR054: 1 H0402: 2 and H0306: 1.		
HCUEV65	750364	599	1 - 168	10351		H0306: 1 and H0402: 1.		
HCUEV82	881370	600	55 - 237	10352		H0402: 2		
HCUEW19	576513	601	3 - 221	10353	His-1 to Thr-7, Pro-9 to Gly-14, Cys-49 to Gly-54, Val-63 to Trp-70.	H0402: 2		
HCUEW58	850061	602	159 - 407	10354	Lys-8 to Gly-16, Ser-70 to Pro-76.	H0402: 2		
HCUEW71	881372	603	95 - 211	10355		H0306: 1, H0402: 1 and H0370: 1.		
HCUEX58	462365	604	1 - 201	10356		H0402: 2		
HCUEX74	953897	605	160 - 318	10357	Lys-26 to Leu-35.	H0402: 2		
HCUEY29	920419	606	232 - 390	10358	Glu-25 to Ala-32.	H0402: 3		
HCUEY48	576519	607	3 - 233	10359	Ser-34 to Gly-39.	H0402: 2		
HCUEZ88	576537	608	185 - 340	10360	Val-6 to Arg-14, Lys-25 to Pro-31.	H0402: 2		
HCUFA05	932116	609	135 - 329	10361		H0402: 2		
HCUFA38	675677	610	2 - 184	10362		S0298: 1, H0402: 1, L0520: 1 and L0758: 1.	4q25	137600, 189800, 217030, 248510, 600919, 601542
HCUFB15	660460	611	75 - 269	10363	Asp-10 to Tyr-18, Ile-53 to Arg-65.	H0402: 3		
HCUFB89	746601	612	69 - 200	10364		H0402: 2		
HCUFC22	951134	613	1 - 171	10365		AR050: 53, AR051: 51, AR054: 51, AR061: 2, AR089: 1 H0402: 2		
HCUFD09	625728	614	3 - 215	10366		H0402: 2, H0306: 1 and L0748: 1.		
HCUFG64	576574	615	2 - 91	10367		H0402: 3		

HCUFH32	920281	616	55 - 240	10368	Met-23 to Glu-30, Leu-46 to Glu-51.	H0402: 2		
HCUFK94	722999	617	2 - 187	10369	Ala-1 to Gly-6, Pro-27 to Gly-41, Gly-44 to Arg-49, Gly-53 to Lys-62.	H0402: 2		
HCUFL02	932429	618	3 - 425	10370	Thr-24 to His-29, Ala-31 to Ala-36, Pro-40 to Gly-53, Phe-132 to Glu-137.	H0402: 2		
HCUFL15	575844	619	3 - 365	10371		H0402: 2		
HCUFL35	677853	620	102 - 287	10372	Lys-1 to Trp-9, Glu-12 to Trp-19, Lys-27 to Gln-32, Gln-54 to Lys-62.	H0402: 1, L0521: 1, L0792: 1 and H0576: 1.		
HCUFL77	575843	621	2 - 184	10373	Glu-10 to Ala-15, Ser-24 to Asn-36.	H0402: 2		
HCUFM60	730707	622	153 - 446	10374	Arg-6 to His-12, Pro-15 to Ser-25, Pro-28 to Leu-34, Ala-50 to Glu-56.	H0402: 2		
HCUFM65	576809	623	365 - 466	10375	Lys-1 to Thr-8, Arg-23 to Gly-31.	H0402: 2 and L0743: 1.		
HCUFN65	741927	624	2 - 460	10376		L0745: 3 and H0402: 2.		
HCUFP13	576582	625	1 - 198	10377	Gly-1 to Gly-6, Trp-32 to Thr-39, Leu-46 to Ser-57.	H0402: 2		
HCUFP76	861703	626	146 - 289	10378		H0306: 1 and H0402: 1.		
HCUFP91	575864	627	2 - 67	10379		H0402: 2		
HCUFQ80	709357	628	323 - 469	10380	Arg-14 to Ser-29.	S0114: 1 and H0402: 1.		
HCUFT26	575721	629	36 - 329	10381	Lys-18 to Phe-27, Arg-39 to Glu-47.	H0306: 1 and H0402: 1.		
HCUFU36	575831	630	1 - 165	10382	Arg-50 to Leu-55.	H0402: 2		
HCUFU49	953896	631	43 - 204	10383		H0402: 2		
HCUFU58	725891	632	429 - 223	10384	Ser-19 to Ser-25, Glu-46 to Ile-56.	L0596: 2, H0402: 1 and H0179: 1.		

HCUFU68	694410	633	161 - 325	10385		H0402: 3 and H0543: 1.		
HCUFU91	828083	634	2 - 226	10386	Ser-29 to Ser-38.	H0402: 2 and H0306: 1.		
HCUFV13	578459	635	260 - 370	10387		H0402: 1 and H0090: 1.		
HCUFV44	576650	636	65 - 265	10388	Leu-1 to Arg-20, Arg-55 to Tyr-61.	S0134: 1, H0402: 1 and L0665: 1.		
HCUFW41	850007	637	3 - 155	10389		H0402: 2, H0306: 1, L0659: 1 and L0599: 1.		
HCUFW61	862086	638	3 - 230	10390		H0402: 1 and H0576: 1.		
HCUFW75	575830	639	137 - 319	10391	Ser-7 to Trp-13, Arg-33 to Ala-38, Pro-40 to Ile-53.	H0402: 2		
HCUFW83	577263	640	164 - 415	10392	Ser-18 to Asn-33.	H0306: 1 and H0402: 1.		
HCUFX24	577266	641	3 - 188	10393		S0114: 1, H0402: 1, H0305: 1 and L0791: 1.		
HCUFX74	850067	642	296 - 60	10394	Gly-1 to Ser-6.	H0306: 1, H0402: 1 and S0216: 1.		
HCUFY27	669876	643	3 - 125	10395		H0306: 1 and H0402: 1.		
HCUFY35	577130	644	3 - 176	10396	His-1 to Ser-9, Pro-29 to His-36, Ser-46 to Cys-51.	H0306: 1 and H0402: 1.		
HCUFY40	967273	645	18 - 206	10397		H0402: 2		
HCUFZ81	878882	646	31 - 360	10398	Glu-27 to Thr-35.	H0402: 2		
HCUGB48	880730	647	173 - 361	10399		H0402: 1 and H0436: 1.		
HCUGC96	575825	648	302 - 478	10400		L0754: 2, H0341: 1 and H0402: 1.		
HCUGD15	660343	649	90 - 257	10401		L0599: 3 and H0402: 2.		
HCUGF18	666495	650	188 - 322	10402	Val-29 to Arg-35.	H0402: 2		
HCUGF61	741842	651	284 - 394	10403	Tyr-13 to Arg-19, Ser-26 to Phe-32.	H0306: 1 and H0402: 1.		
HCUGG25	678112	652	31 - 177	10404	Ala-27 to Lys-32.	H0402: 2		
HCUGH01	916600	653	180 - 329	10405	Trp-1 to Gly-7, Pro-28 to Ser-49.	H0402: 2 and L0748: 1.		
HCUGH30	778735	654	124 - 285	10406		L0749: 2, H0402: 1, L0740: 1 and H0423: 1.		
HCUGH34	706469	655	3 - 197	10407	Pro-1 to Gly-7, Ser-12 to Phe-20.	H0306: 1 and H0402: 1.		

HCUGH83	862078	656	82 - 186	10408	Val-15 to Arg-27.	H0306: 1 and H0402: 1.		
HCUGI29	584711	657	74 - 259	10409		H0402: 4, H0436: 1, L0748: 1 and L0749: 1.		
HCUGI54	715310	658	45 - 167	10410		H0402: 2		
HCUGJ35	850046	659	1 - 234	10411	Pro-18 to Ser-24.	H0402: 2		
HCUGK10	850035	660	103 - 360	10412	Pro-46 to Ser-51.	H0306: 1 and H0402: 1.		
HCUGK91	790218	661	3 - 149	10413		H0402: 1 and H0305: 1.		
HCUGL14	658467	662	151 - 255	10414		H0402: 2		
HCUGL84	496491	663	85 - 318	10415	Asn-6 to Gln-13, Asp-33 to Gly-38.	H0402: 2		
HCUGM08	959488	664	1 - 321	10416	Ser-27 to Glu-34.	H0402: 2		
HCUGN12	970727	665	6 - 131	10417	Asn-13 to Gly-20, Arg-29 to Asn-34.	L0749: 3 and H0402: 2.		
HCUGO02	920154	666	160 - 354	10418	Leu-7 to Leu-13, Cys-20 to His-27, Leu-32 to Arg-37.	H0402: 2		
HCUGP83	850029	667	1 - 159	10419		H0254: 1 and H0402: 1.		
HCUGQ16	917269	668	139 - 357	10420		H0306: 2 and H0402: 1.		
HCUGQ18	666474	669	134 - 316	10421	Pro-11 to Gly-16.	H0306: 1 and H0402: 1.		
HCUGR38	706471	670	3 - 317	10422	Ser-2 to His-7, Pro-14 to Leu-20, Ala-33 to Gly-38.	AR089: 1, AR061: 0 H0402: 1 and H0305: 1.		
HCUGR82	916538	671	296 - 439	10423	Tyr-6 to Trp-13.	H0402: 3 and L0529: 1.		
HCUGT92	692730	672	43 - 255	10424	Ile-1 to His-8, His-11 to Asn-20, Pro-40 to Lys-50.	H0402: 2		
HCUGU46	666815	673	120 - 212	10425		H0306: 1 and H0402: 1.		
HCUGV38	850032	674	2 - 175	10426		H0402: 2		
HCUGV60	496443	675	20 - 238	10427	Pro-19 to Glu-39, Glu-48 to Glu-58.	H0306: 1 and H0402: 1.		
HCUGW04	960596	676	64 - 270	10428	Glu-1 to Gly-8.	H0402: 2		
HCUGY26	953550	677	290 - 454	10429	Lys-15 to Lys-29.	L0748: 3, H0402: 2, H0075: 1 and H0439: 1.		
HCUGZ15	792418	678	193 - 369	10430		H0402: 1 and H0444: 1.		
HCUHA63	745094	679	75 - 239	10431		H0402: 1 and H0318: 1.		

HCUHA74	576850	680	288 - 446	10432	Val-15 to Ala-21, Lys-32 to Gly-38.	H0305: 2, H0589: 2 and H0402: 1.		
HCUHB30	850018	681	81 - 245	10433		H0306: 1, H0402: 1, L0556: 1, L0532: 1 and L0756: 1.		
HCUHC25	920830	682	1 - 228	10434	Leu-10 to Arg-26.	S0114: 1 and H0402: 1.		
HCUHC41	712343	683	1 - 366	10435	Gly-9 to Gly-15.	H0306: 1 and H0402: 1.		
HCUHC45	671212	684	129 - 323	10436	Pro-28 to Gln-34, Ser-42 to Ile-57.	H0306: 1 and H0402: 1.		
HCUHC69	693007	685	26 - 139	10437	Asn-1 to Glu-7.	H0306: 2 and H0402: 1.		
HCUHD50	650854	686	264 - 410	10438		H0402: 2		
HCUHD55	705384	687	91 - 390	10439	Ala-6 to Phe-19, Arg-37 to Trp-47, Ser-64 to Gly-72, His-79 to Arg-100.	H0341: 1, H0402: 1 and S0053: 1.		
HCUHE23	675910	688	1 - 297	10440	Gly-1 to Gln-6, Thr-54 to Gly-65.	H0306: 1 and H0402: 1.		
HCUHE31	693311	689	196 - 354	10441		H0306: 1, H0402: 1 and H0305: 1.		
HCUHE43	754187	690	60 - 272	10442		H0306: 1 and H0402: 1.		
HCUHE48	835917	691	57 - 329	10443		L0662: 2, S0114: 1, H0402: 1 and L0766: 1.		
HCUHE76	666599	692	98 - 253	10444		H0402: 2		
HCUHF12	970685	693	240 - 446	10445	Gly-14 to Arg-22, Gln-35 to Ala-41.	H0306: 1 and H0402: 1.		
HCUHF41	878528	694	223 - 459	10446	Pro-25 to Glu-30, Leu-71 to Gln-79.	AR051: 37, AR054: 25, AR050: 23 H0306: 1 and H0402: 1.		
HCUHH14	658452	695	48 - 209	10447	Gln-29 to Ile-36.	H0306: 1, H0402: 1 and L0764: 1.		
HCUHI34	923803	696	184 - 516	10448	Gln-1 to His-13, Met-18 to His-24.	H0402: 1 and H0486: 1.		
HCUHI54	720378	697	63 - 242	10449	Gln-4 to Arg-17.	H0402: 2		
HCUHJ12	970782	698	1 - 219	10450	Pro-13 to Ser-22.	H0402: 2		
HCUHJ15	577304	699	3 - 416	10451	Leu-10 to Trp-18, Pro-31 to Gln-36, Asp-46 to Thr-57.	H0306: 1 and H0402: 1.		

HCUHJ30	966583	700	132 - 431	10452	Arg-26 to Ile-31, His-34 to Lys-39, Phe-47 to Arg-54.	H0402: 1, H0580: 1 and H0488: 1.		
HCUHJ58	575796	701	158 - 364	10453	Pro-32 to Arg-37.	H0402: 2		
HCUHM44	615198	702	2 - 109	10454	Lys-1 to Pro-26.	H0402: 2		
HCUHM61	576561	703	37 - 327	10455	Ile-3 to Arg-10, Gly-59 to Lys-69.	H0402: 2		
HCUHM94	736095	704	93 - 263	10456	Lys-1 to Gly-8.	H0402: 2		
HCUHO60	576563	705	3 - 272	10457	Ser-1 to Gly-14, Val-17 to Pro-31, Lys-39 to Thr-45, Ser-51 to Glu-56, Ala-72 to Trp-85.	H0402: 2		
HCUHP20	669737	706	53 - 196	10458		H0402: 2 and L0601: 1.		
HCUHQ13	575803	707	133 - 318	10459	Ser-4 to His-16.	H0402: 2		
HCUHQ33	575800	708	3 - 353	10460	Lys-43 to Tyr-53, Ser-89 to Arg-95.	H0402: 2		
HCUHQ37	850010	709	76 - 270	10461	Leu-42 to Glu-55.	H0341: 1, H0402: 1 and L0748: 1.		
HCUHQ74	765638	710	30 - 311	10462	Gly-7 to Arg-13, Gly-33 to His-39, Gly-46 to Val-51, Pro-75 to Lys-90.	H0402: 1 and H0444: 1.		
HCUHS19	566809	711	48 - 200	10463	Leu-9 to Ser-17.	AR054: 29, AR051: 24, AR050: 13 H0402: 2, H0306: 1, L0659: 1 and L0599: 1.		
HCUHS60	850009	712	29 - 190	10464	Pro-1 to Gly-13.	H0306: 1 and H0402: 1.		
HCUHT21	577265	713	61 - 135	10465		H0306: 1 and H0402: 1.		
HCUHT56	722649	714	110 - 379	10466	Leu-31 to Leu-37, Pro-39 to Val-60, Arg-80 to Gln-90.	H0402: 1 and H0445: 1.		
HCUHU68	577795	715	225 - 1	10467	Lys-1 to Asp-7, Lys-48 to Ser-54.	H0254: 1 and H0402: 1.		
HCUHW54	730716	716	1 - 114	10468	Gly-1 to Thr-11, Thr-24 to Pro-31.	H0402: 2		

HCUHW59	739329	717	2 - 178	10469		H0402: 3		
HCUHY49	577887	718	17 - 226	10470		H0306: 1 and H0402: 1.		
HCUIA48	721719	719	2 - 124	10471	Lys-27 to Leu-40.	H0306: 1 and H0402: 1.		
HCUIJ35	713818	720	339 - 482	10472	Glu-1 to Leu-12.	S0052: 2 and H0402: 1.		
HCUIL80	577172	721	71 - 3	10473	Cys-11 to Gly-20.	H0306: 1 and H0402: 1.		
HCUIM51	725724	722	3 - 290	10474		H0306: 1 and H0402: 1.		
HCUIN18	666537	723	1 - 195	10475	Phe-11 to Ser-17, Pro-45 to Ala-53.	H0306: 1 and H0402: 1.		
HCUIO82	883812	724	149 - 337	10476	Gly-10 to Arg-15.	H0306: 1 and H0402: 1.		
HCVAC18	889480	725	88 - 192	10477		AR050: 9, AR054: 5, AR051: 0 H0300: 2		
HCWAA20	669991	726	3 - 83	10478	Gln-1 to Lys-10.	H0305: 2		
HCWAB01	921689	727	90 - 218	10479		H0305: 3		
HCWAB44	669714	728	183 - 326	10480	Asp-1 to Lys-17.	H0305: 2		
HCWAB50	724684	729	79 - 153	10481	Phe-18 to Val-24.	H0556: 1, H0305: 1 and S0002: 1.		
HCWAB56	507283	730	17 - 157	10482		H0305: 2		
HCWAB67	529658	731	53 - 124	10483		H0305: 2		
HCWAB80	959937	732	1 - 153	10484		H0305: 2		
HCWAB92	523447	733	43 - 159	10485	Ser-1 to Thr-6, Tyr-22 to Thr-27.	H0305: 2		
HCWAC68	529653	734	2 - 205	10486	Gly-1 to Ser-18, Gly-30 to Thr-38.	H0305: 3		
HCWAE16	660280	735	1 - 168	10487	Val-11 to Arg-18, Arg-49 to Arg-56.	H0305: 2		
HCWAE50	655130	736	132 - 224	10488	Tyr-1 to Lys-14.	H0305: 3		
HCWAF02	920993	737	101 - 391	10489	Pro-1 to Gln-8.	H0305: 2, H0589: 1 and S0428: 1.		
HCWAF45	723452	738	2 - 148	10490	Arg-1 to His-10, Ile-22 to Lys-27.	H0305: 2 and L0774: 1.		
HCWAF60	523354	739	56 - 268	10491		H0305: 2		
HCWAF80	529498	740	2 - 223	10492	Ala-9 to Glu-15.	H0305: 2		
HCWAG20	839796	741	91 - 228	10493	Ser-36 to Arg-46.	H0305: 2 and H0589: 2.		
HCWAG70	529357	742	61 - 321	10494	Glu-1 to Gly-6,	H0305: 2 and H0589: 1.		

					Thr-20 to Ser-29, Lys-46 to Arg-59.			
HCWAH52	574929	743	24 - 221	10495		H0305: 2		
HCWAI93	523536	744	3 - 335	10496	Leu-20 to Gly-29, Thr-36 to Ser-43.	H0305: 2 and H0264: 1.		
HCWAJ55	529361	745	1 - 81	10497	Pro-10 to Arg-20.	H0305: 2		
HCWAJ58	740987	746	213 - 365	10498	Ser-4 to His-12.	H0305: 2		
HCWAK51	751640	747	133 - 309	10499		H0305: 2		
HCWAK80	702435	748	187 - 483	10500	Thr-21 to Ser-34, Tyr-46 to Phe-54.	S0114: 2, H0305: 2 and H0589: 1.		
HCWAL14	861958	749	79 - 345	10501	Arg-3 to Asp-9.	H0305: 2		
HCWAL22	579046	750	83 - 481	10502	Pro-39 to Asp-45, Pro-63 to Gly-71, Tyr-78 to Trp-91.	H0589: 2, H0402: 1 and H0305: 1.		
HCWAL39	861893	751	55 - 315	10503	Lys-11 to Ser-21, Gln-26 to Asp-35, Gln-58 to Gln-66.	H0305: 4 and S0052: 1.		
HCWAM08	960170	752	43 - 108	10504	Lys-12 to Gly-22.	H0305: 2 and H0589: 2.		
HCWAM39	529349	753	1 - 183	10505		H0305: 1 and S0052: 1.		
HCWAM49	849980	754	145 - 507	10506		H0305: 6 and H0589: 1.		
HCWAN17	966646	755	333 - 133	10507	Phe-11 to Trp-17, Glu-33 to Val-46, Trp-48 to Leu-56.	H0402: 3, H0305: 2, S0114: 1 and H0589: 1.		
HCWAN55	928116	756	57 - 389	10508	Pro-7 to Gly-13, Gly-41 to Asp-46.	H0305: 11		
HCWAP63	523259	757	182 - 400	10509	Glu-22 to Ala-29.	H0305: 3		
HCWAP66	889439	758	40 - 168	10510	Gln-18 to Ser-23.	AR050: 2, AR051: 1 H0305: 2		
HCWAR05	932623	759	2 - 373	10511	Glu-9 to Lys-15, Pro-89 to Arg-100.	H0305: 2		
HCWAR59	916461	760	2 - 391	10512	Gln-2 to Trp-18, Pro-46 to Val-64, Arg-70 to Arg-85, Asp-90 to Gln-102, Glu-115 to Gly-123.	H0305: 7 and H0589: 1.		
HCWAR63	523255	761	187 - 357	10513	Gly-11 to His-19,	H0305: 4		

					Gln-36 to Gln-44.			
HCWAR76	529652	762	283 - 501	10514		H0305: 3 and H0589: 2.		
HCWAR84	529241	763	54 - 212	10515	Trp-12 to Thr-17.	H0305: 2		
HCWAT16	523125	764	151 - 315	10516		H0305: 3		
HCWAT59	529236	765	1 - 243	10517	Gly-4 to Ala-10, Gln-22 to Ser-29, Gln-35 to Ser-41, Ala-56 to Gly-71.	H0305: 4 and H0589: 1.		
HCWAU26	849902	766	103 - 276	10518	Pro-9 to Gly-15.	H0305: 6		
HCWAU89	589836	767	87 - 293	10519	Ala-1 to Pro-14, Pro-21 to Tyr-29, Phe-58 to Leu-69.	H0305: 3 and H0589: 1.		
HCWAV75	849976	768	45 - 203	10520	Lys-8 to His-16.	H0305: 2		
HCWAY41	542388	769	137 - 328	10521	Arg-7 to Pro-12, Gly-28 to Lys-38.	H0305: 9		
HCWAZ16	529227	770	166 - 342	10522	Ser-17 to Trp-22.	H0305: 2		
HCWAZ43	849892	771	68 - 289	10523	Val-28 to Arg-38.	H0305: 5 and H0589: 1.		
HCWAZ66	523243	772	176 - 409	10524		H0305: 2		
HCWAZ73	523299	773	51 - 296	10525	Thr-22 to Thr-27.	H0305: 3		
HCWAZ91	529226	774	1 - 396	10526	Asp-30 to Asp-35.	H0305: 2 and H0589: 1.		
HCWBA18	529224	775	61 - 135	10527		H0305: 2		
HCWBA21	937631	776	88 - 276	10528	Phe-15 to Ser-21, Lys-50 to Asn-63.	H0305: 2 and L0361: 1.		
HCWBA49	723359	777	29 - 184	10529	Ser-16 to Phe-24.	H0305: 4 and L0794: 2.		
HCWBA50	835532	778	1 - 183	10530		H0305: 6		
HCWBA55	529222	779	11 - 301	10531	Lys-1 to Cys-15.	H0305: 3 and H0589: 1.		
HCWBA64	715579	780	90 - 278	10532	Glu-1 to Gly-12.	H0305: 4		
HCWBB27	967045	781	87 - 299	10533	Lys-1 to Ser-6.	H0305: 2		
HCWBB63	667283	782	3 - 323	10534	Arg-3 to Ser-9, Asp-29 to Ser-34.	AR061: 0, AR089: 0 H0305: 3		
HCWBC16	529350	783	1 - 222	10535	Gly-33 to Pro-41.	H0305: 2		
HCWBC28	584778	784	3 - 278	10536	Glu-1 to Asn-23.	H0305: 2		
HCWBC32	574909	785	202 - 333	10537		H0305: 2		
HCWBC54	573188	786	10 - 108	10538		H0305: 2		
HCWBC61	728666	787	87 - 239	10539		H0305: 2		

HCWBC69	849971	788	1 - 126	10540	His-26 to Thr-31, Gly-36 to Tyr-42.	H0305: 2		
HCWBC71	784052	789	1 - 48	10541		H0305: 2		
HCWBC81	849974	790	1 - 261	10542		H0305: 2		
HCWBD54	706513	791	18 - 251	10543	Tyr-10 to Ile-16.	H0305: 3		
HCWBE25	529216	792	1 - 141	10544		H0305: 2		
HCWBE37	542403	793	42 - 320	10545		H0305: 4 and H0589: 1.		
HCWBE49	932196	794	220 - 420	10546	Gly-10 to Gly-17.	H0305: 8		
HCWBE51	782317	795	220 - 411	10547		H0305: 2 and H0589: 2.		
HCWBE58	773587	796	2 - 175	10548	Gln-12 to Ser-17.	H0305: 2		
HCWBE69	723717	797	27 - 242	10549		H0305: 2, S0114: 1 and L0752: 1.		
HCWBE71	688011	798	295 - 405	10550		H0305: 5		
HCWBE76	968515	799	1 - 171	10551	Thr-2 to Arg-56.	H0305: 2		
HCWBG06	954670	800	1 - 72	10552		H0305: 2		
HCWBG30	920530	801	2 - 301	10553	Ala-1 to Arg-8, Lys-25 to Thr-30, His-32 to Gln-37, Arg-46 to Ser-59, His-65 to Trp-71, Arg-76 to Arg-82.	H0305: 3		
HCWBG40	676588	802	270 - 473	10554	Lys-1 to Arg-6.	H0305: 2 and H0589: 1.		
HCWBG41	839014	803	95 - 280	10555	Arg-25 to Ser-34, Gly-40 to Ser-45.	H0305: 4		
HCWBG43	689743	804	42 - 167	10556	Arg-34 to Pro-41.	H0305: 3		
HCWBG77	529229	805	115 - 288	10557	Pro-13 to Lys-23.	H0305: 3		
HCWBG91	789318	806	3 - 83	10558		H0305: 2		
HCWBI17	954153	807	149 - 3	10559	Ser-17 to Asn-27.	H0305: 3		
HCWBI24	529211	808	1 - 126	10560		H0305: 2		
HCWBI37	967717	809	3 - 209	10561	Trp-10 to Gly-17, Pro-42 to Asp-48, Asp-57 to Asp-67.	H0305: 3 and H0589: 1.		
HCWBI53	934909	810	105 - 305	10562	Arg-1 to Ser-13, Pro-25 to Pro-31.	H0305: 5 and H0589: 2.		
HCWBI77	529238	811	32 - 229	10563	His-39 to Pro-46,	H0305: 2		

					Cys-58 to Trp-66.			
HCWBI90	921653	812	2 - 355	10564		H0305: 3 and H0589: 1.		
HCWBJ02	917300	813	14 - 283	10565	Lys-12 to Glu-22, Thr-49 to Thr-55.	H0305: 3		
HCWBJ27	784524	814	3 - 140	10566		H0305: 4		
HCWBJ61	849967	815	42 - 269	10567	Arg-8 to Asn-15, Ser-17 to Ser-25, Gln-28 to Leu-34, Pro-52 to Val-65.	H0305: 6		
HCWBJ66	529228	816	2 - 100	10568	Arg-18 to Leu-27.	H0305: 2		
HCWBJ75	935579	817	245 - 421	10569	Ser-1 to Arg-6, Leu-13 to Glu-26.	H0306: 1, H0402: 1, H0305: 1, L0605: 1 and H0543: 1.		
HCWBJ81	849977	818	2 - 124	10570		H0305: 2		
HCWBJ86	719521	819	38 - 157	10571	Ser-23 to Asn-28.	H0305: 3		
HCWBL38	935481	820	136 - 261	10572		H0305: 3		
HCWBL41	666457	821	2 - 151	10573	Tyr-3 to Ser-10.	H0305: 2		
HCWBM04	861842	822	133 - 342	10574	Leu-48 to Leu-53.	H0305: 2 and H0589: 1.		
HCWBM50	577712	823	200 - 355	10575	Gln-10 to Lys-22.	H0305: 2		
HCWBM95	849932	824	56 - 268	10576		H0305: 5 and H0589: 1.		
HCWBN06	924638	825	2 - 373	10577	Gly-1 to Asn-6.	H0305: 5		
HCWBO10	842038	826	104 - 244	10578		H0305: 6		
HCWBO23	964590	827	2 - 148	10579	His-2 to Pro-9.	H0305: 2		
HCWBO94	574861	828	87 - 344	10580	Glu-10 to Gly-22, Leu-26 to Ala-35, Pro-52 to Ala-59, Ser-68 to Leu-74.	H0305: 2		
HCWBP27	684336	829	166 - 318	10581	Cys-5 to Asp-17, Leu-19 to Ala-27.	H0589: 2 and H0305: 1.		
HCWBP56	733662	830	1 - 204	10582	Ala-35 to Ser-40.	H0305: 2		
HCWBP70	757467	831	117 - 338	10583	Tyr-22 to Trp-28.	H0305: 1 and H0589: 1.		
HCWBP74	765881	832	87 - 200	10584		H0305: 3		
HCWBP85	849969	833	3 - 371	10585	Ser-54 to His-61.	H0305: 12, H0589: 1 and L0369: 1.		
HCWBQ03	920886	834	3 - 311	10586		H0305: 5		
HCWBQ36	557873	835	22 - 222	10587	Leu-53 to Pro-67.	H0305: 2		

HCWBQ70	706526	836	1 - 387	10588	Asp-6 to Phe-11, Ile-31 to Phe-37, Arg-82 to His-87, Glu-95 to Gln-101.	H0589: 2 and H0305: 1.		
HCWBQ74	526537	837	43 - 201	10589	Gln-6 to Gly-12.	H0305: 2		
HCWBQ88	527694	838	53 - 172	10590		H0305: 2		
HCWBR06	527692	839	1 - 210	10591		H0305: 3 and L0777: 1.		
HCWBR89	967726	840	74 - 352	10592		H0305: 3 and H0589: 1.		
HCWBS66	574850	841	2 - 133	10593	Val-28 to Gly-44.	H0305: 2		
HCWBS67	842037	842	191 - 382	10594	Phe-15 to Arg-24, Pro-46 to Thr-57.	H0305: 3		
HCWBS96	954028	843	149 - 343	10595		H0305: 2 and H0556: 1.		
HCWBT30	523249	844	3 - 353	10596		H0305: 3 and H0589: 1.		
HCWBT31	720016	845	106 - 297	10597	His-33 to Lys-42.	H0589: 2, H0305: 1 and L0779: 1.		
HCWBT48	527676	846	3 - 98	10598	Gly-1 to Gly-9.	H0305: 2		
HCWBT86	927506	847	18 - 152	10599	Leu-9 to Leu-17, Gln-27 to His-34.	H0305: 1 and H0589: 1.		
HCWBU09	527562	848	2 - 151	10600	Arg-14 to Gly-20.	H0305: 2 and S0134: 1.		
HCWBU24	861864	849	92 - 337	10601		H0305: 5		
HCWBU49	850014	850	195 - 1	10602	Arg-1 to Trp-13, Lys-24 to Cys-43.	AR050: 16, AR051: 12, AR054: 7 H0305: 2		
HCWBU72	668350	851	219 - 371	10603	Tyr-17 to Tyr-22.	H0305: 1 and H0589: 1.		
HCWBV09	746335	852	155 - 355	10604	Gly-20 to Glu-26, Ser-39 to Ser-53.	H0305: 3 and H0589: 1.		
HCWBV51	725889	853	90 - 329	10605	Leu-7 to Cys-12.	H0305: 2		
HCWBV96	796584	854	198 - 410	10606	Glu-8 to Thr-13, Ala-37 to Leu-50.	H0457: 2, H0305: 1, L0363: 1 and H0444: 1.		
HCWBX63	527081	855	101 - 3	10607		H0305: 2		
HCWBX65	970694	856	108 - 10	10608	Glu-1 to Leu-8.	H0305: 3		
HCWBX67	506730	857	2 - 310	10609		H0305: 2		
HCWBX75	767491	858	3 - 98	10610		H0305: 2		
HCWBZ78	706521	859	194 - 391	10611		H0305: 4 and H0589: 1.		
HCWCA51	849923	860	111 - 332	10612		H0305: 2 and H0445: 1.		

HCWCB37	527683	861	1 - 210	10613		H0305: 3		
HCWCB80	529234	862	2 - 163	10614		H0305: 2		
HCWCB89	542340	863	188 - 75	10615		H0305: 5		
HCWCC62	967306	864	183 - 344	10616		H0305: 3 and H0589: 1.		
HCWCC77	527077	865	110 - 292	10617	Gly-11 to Gly-27.	H0305: 4 and H0589: 1.		
HCWCC82	705347	866	2 - 355	10618		H0305: 2		
HCWCE02	849968	867	2 - 232	10619	Ser-31 to Trp-43, Arg-48 to Gly-58.	H0305: 4		
HCWCE21	523224	868	296 - 553	10620		H0305: 4 and L0731: 1.		
HCWCE35	706489	869	27 - 215	10621		H0305: 2		
HCWCE63	527678	870	17 - 256	10622	Leu-15 to Gln-20, Thr-26 to Arg-35.	H0305: 2		
HCWCE69	757800	871	92 - 268	10623	Pro-14 to Gln-20, Arg-50 to Thr-59.	H0305: 2		
HCWCE71	932549	872	62 - 205	10624		H0305: 3		
HCWCE86	964648	873	167 - 403	10625	Ser-33 to Ser-38.	H0305: 8		
HCWCF04	615626	874	1 - 51	10626	Gly-1 to Gly-7.	H0305: 2		
HCWCF06	954580	875	3 - 218	10627		H0305: 2		
HCWCF91	527558	876	1 - 276	10628		H0305: 3		
HCWCF94	952684	877	1 - 186	10629	Gly-1 to Ala-13.	H0305: 1 and H0589: 1.		
HCWCG31	527090	878	147 - 401	10630	Arg-1 to Val-11, Ala-75 to Gln-85.	H0305: 4, H0589: 2 and S0053: 1.		
HCWCG62	575336	879	57 - 266	10631	Arg-6 to Pro-15.	H0305: 2		
HCWCH01	920706	880	3 - 278	10632	Gly-17 to Thr-25.	H0305: 4		
HCWCH22	675011	881	34 - 144	10633	Gly-4 to Leu-9, Leu-11 to Arg-16.	H0305: 2		
HCWCH45	577704	882	3 - 305	10634	Val-23 to Glu-30, Asn-66 to Leu-73.	H0305: 2		
HCWCI01	921586	883	1 - 168	10635	Met-30 to Pro-35.	H0305: 2		
HCWCI38	556358	884	3 - 494	10636	Gly-17 to Ser-27.	H0305: 9 and H0589: 2.		
HCWCI86	790718	885	60 - 161	10637		H0305: 3 and H0589: 1.		
HCWCJ85	529243	886	215 - 337	10638	Arg-14 to Pro-19.	H0305: 2		
HCWCL10	888992	887	233 - 478	10639		H0305: 6		
HCWCL62	715981	888	76 - 312	10640	Thr-12 to Asp-17, Ser-36 to Lys-59.	H0305: 1 and H0589: 1.		

HCWCL67	751963	889	1 - 126	10641		H0305: 3		
HCWCM16	667392	890	2 - 142	10642	Cys-29 to Ser-35.	H0305: 2		
HCWCM65	529230	891	1 - 360	10643	Ser-45 to His-58.	AR089: 3, AR061: 1 H0305: 2 and H0589: 1.		
HCWCM96	963564	892	124 - 237	10644		H0305: 3 and H0589: 1.		
HCWCN25	518793	893	71 - 229	10645	Ile-6 to Trp-12.	H0305: 2		
HCWCN40	835584	894	60 - 203	10646		H0305: 8 and H0589: 1.		
HCWCN45	723418	895	277 - 378	10647	Lys-1 to Tyr-15.	H0305: 1 and H0521: 1.		
HCWCN61	924894	896	42 - 308	10648		H0305: 3		
HCWCN92	527088	897	2 - 175	10649		H0305: 2 and L0753: 1.		
HCWCO02	920876	898	22 - 261	10650		H0305: 1 and H0589: 1.		
HCWCO21	523225	899	2 - 157	10651	Ala-7 to Ala-12, Arg-33 to Trp-44.	H0305: 2		
HCWCO35	706490	900	93 - 374	10652	Glu-47 to Pro-54, Ala-72 to Arg-79.	H0305: 1 and H0589: 1.		
HCWCO54	558274	901	84 - 182	10653		H0305: 3 and H0589: 1.		
HCWCO63	557917	902	125 - 274	10654	Gly-39 to Pro-44.	H0305: 3		
HCWCO72	527546	903	91 - 213	10655	Gly-17 to Gln-26.	H0305: 2		
HCWCO77	772515	904	1 - 102	10656	Gly-1 to Pro-7, Arg-25 to Ser-32.	H0305: 1 and H0589: 1.		
HCWCP68	573148	905	1 - 162	10657	Pro-6 to Phe-14.	H0305: 2, S0114: 1 and L0527: 1.		
HCWCQ15	527688	906	191 - 325	10658	Phe-28 to Pro-33.	H0305: 2		
HCWCQ48	531423	907	3 - 71	10659		H0305: 2		
HCWCQ95	723610	908	2 - 112	10660	Pro-2 to Arg-11.	H0305: 2		
HCWCR31	693632	909	31 - 411	10661		AR089: 42, AR061: 4 H0305: 2, L0483: 1, L0764: 1, L0747: 1, L0756: 1 and L0758: 1.	12q	
HCWCR64	526482	910	3 - 185	10662	Thr-1 to Lys-6, Arg-52 to Ala-57.	H0305: 2		
HCWCS12	585202	911	7 - 237	10663	Thr-22 to Trp-28, Lys-36 to Lys-47, Lys-71 to Pro-77.	H0305: 3		
HCWCS51	921636	912	1 - 123	10664		H0305: 3		

HCWCT07	954070	913	104 - 271	10665		H0305: 2		
HCWCT23	676336	914	30 - 191	10666	Gln-5 to Trp-13.	H0305: 3		
HCWCT48	741925	915	198 - 365	10667		H0305: 2 and H0589: 1.		
HCWCT85	527543	916	125 - 214	10668		H0305: 2		
HCWCU01	921618	917	2 - 154	10669	Lys-16 to Asp-25.	H0305: 2, L0518: 1 and L0593: 1.		
HCWCU17	577688	918	14 - 139	10670	Met-20 to Tyr-25.	H0305: 2		
HCWCU32	725584	919	1 - 441	10671		AR051: 399, AR050: 312, AR054: 268 H0305: 8		
HCWCU57	764602	920	46 - 261	10672	Glu-23 to Val-28, Phe-67 to Arg-72.	H0305: 3, L0805: 1 and H0543: 1.		
HCWCU58	527695	921	3 - 269	10673	Lys-1 to Lys-7.	H0305: 2		
HCWCU63	527541	922	2 - 175	10674		H0305: 3		
HCWCU94	713416	923	3 - 272	10675		H0305: 1 and H0589: 1.		
HCWCV01	921569	924	101 - 238	10676		H0305: 2		
HCWCV09	861950	925	217 - 432	10677		H0305: 5		
HCWCV16	861839	926	3 - 377	10678	Glu-6 to Asn-11, Pro-21 to Thr-26.	H0305: 3 and H0589: 1.		
HCWCV58	966512	927	180 - 326	10679	Ser-1 to Arg-6, Pro-15 to Thr-27.	H0305: 1 and H0589: 1.		
HCWCV75	527080	928	3 - 239	10680	Gly-14 to Trp-31.	H0305: 4		
HCWCV85	966987	929	116 - 247	10681		H0305: 3		
HCWCV93	792550	930	2 - 88	10682		H0305: 2		
HCWCX18	574933	931	89 - 256	10683	Glu-1 to Ala-6, Gln-31 to Thr-36.	H0305: 5 and H0589: 1.		
HCWCY16	507191	932	110 - 229	10684		H0305: 2		
HCWCZ33	523265	933	3 - 200	10685		H0305: 9		
HCWDB74	521894	934	76 - 279	10686	Thr-23 to Ser-29.	H0305: 3		
HCWDB94	531417	935	77 - 277	10687		H0305: 2		
HCWDD15	660571	936	2 - 277	10688		H0305: 1, L0664: 1 and H0444: 1.		
HCWDD60	575555	937	2 - 130	10689		H0305: 4		
HCWDG46	715509	938	65 - 160	10690	Lys-3 to Leu-15.	H0305: 2		
HCWDG49	861951	939	3 - 461	10691	Phe-16 to Arg-24,	H0305: 2		

					Ser-35 to Arg-41.			
HCWDH65	574250	940	297 - 479	10692		H0305: 2		
HCWDH85	574262	941	53 - 181	10693		H0305: 2		
HCWDH92	790618	942	16 - 198	10694	Leu-18 to His-23.	H0305: 1 and H0589: 1.		
HCWDI37	849867	943	159 - 329	10695	Gln-3 to Ser-9.	H0305: 5		
HCWDI43	527685	944	32 - 274	10696	Arg-24 to Trp-40, Phe-49 to Ser-54, Gly-63 to Trp-71.	H0305: 2		
HCWDI64	924632	945	72 - 185	10697		H0305: 2		
HCWDI72	573034	946	49 - 177	10698	Arg-16 to Thr-27, Leu-34 to Pro-43.	H0305: 2		
HCWDI79	526765	947	18 - 143	10699		H0305: 3		
HCWDI82	671636	948	2 - 208	10700	Pro-10 to Gly-15, Ala-38 to Arg-43, Ser-52 to Pro-59.	H0305: 2		
HCWDI89	953750	949	248 - 460	10701	Ser-1 to Gln-10, Pro-49 to Lys-59.	H0305: 3, L0749: 3, L0748: 2, H0589: 1, L0481: 1, L0772: 1 and L0589: 1.		
HCWDI92	733422	950	34 - 189	10702	Glu-45 to Ala-52.	H0305: 2		
HCWDJ21	524780	951	97 - 279	10703		H0305: 3		
HCWDJ23	527555	952	1 - 360	10704	Thr-2 to Ala-10.	AR089: 0, AR061: 0 H0305: 2		
HCWDJ31	531418	953	91 - 240	10705	Gly-1 to Ser-12, Ser-19 to Gly-27.	H0305: 2		
HCWDJ45	523227	954	49 - 435	10706	Glu-1 to Gln-6, Pro-21 to Trp-26.	H0305: 3		
HCWDJ89	697736	955	141 - 422	10707	Asn-5 to Thr-13.	H0589: 2, H0305: 1 and H0444: 1.		
HCWDL19	669721	956	55 - 222	10708	Ser-19 to Glu-36.	H0305: 3 and L0766: 1.		
HCWDL45	889416	957	118 - 282	10709	Ala-33 to Ile-42.	AR089: 16, AR061: 4 H0305: 6 and S0052: 1.		
HCWDL68	752320	958	2 - 175	10710	Ala-1 to Asn-8, Ser-44 to Arg-51.	H0305: 1 and S0052: 1.		
	752857	9549	418 - 56	19301				
HCWDM02	920563	959	155 - 379	10711	Ser-44 to Asn-49.	H0305: 2		
HCWDM06	935898	960	1 - 189	10712		H0305: 3		

HCWDM07	953742	961	202 - 480	10713		H0305: 3		
HCWDM14	849962	962	85 - 291	10714		H0305: 5 and L0375: 1.		
HCWDM23	676215	963	142 - 303	10715	Asn-5 to Gln-14.	H0305: 2 and H0589: 1.		
HCWDM60	754785	964	80 - 337	10716		H0305: 4 and H0589: 1.		
HCWDM79	578967	965	2 - 274	10717	Glu-53 to Gly-58.	H0305: 1 and H0589: 1.		
HCWDN15	557862	966	92 - 205	10718		H0305: 2 and L0020: 1.		
HCWDN60	861882	967	1 - 285	10719	Gly-3 to Phe-12, Ala-70 to Ala-77.	H0305: 2 and L0657: 1.		
HCWDO11	967364	968	162 - 353	10720	Pro-22 to His-31.	H0305: 3		
HCWDO56	961273	969	106 - 369	10721	Glu-19 to Gly-24, Ala-39 to Leu-45, Pro-56 to Trp-64.	H0305: 13 and H0253: 1.		
HCWDO65	920523	970	66 - 314	10722	Asp-18 to Leu-27, Lys-51 to Lys-62.	H0305: 4		
HCWDP85	747141	971	162 - 296	10723	Asn-14 to Lys-25.	H0305: 2		
HCWDQ35	573577	972	2 - 286	10724	Thr-11 to Thr-16.	H0305: 2		
HCWDR01	839104	973	3 - 479	10725	Arg-78 to Lys-97.	AR089: 1, AR061: 0 H0305: 4 and H0589: 1.		
HCWDR42	529354	974	95 - 298	10726		H0305: 2		
HCWDR63	849899	975	249 - 503	10727	Asp-35 to Pro-52.	H0305: 3 and H0580: 1.		
HCWDR86	527690	976	2 - 253	10728		H0305: 4 and L0748: 1.		
HCWDR89	787025	977	114 - 296	10729	Arg-1 to Asp-7.	H0305: 2		
HCWDS10	880973	978	210 - 422	10730		H0305: 3		
HCWDS19	418009	979	2 - 217	10731	Ala-6 to Ser-11.	H0305: 2		
HCWDS26	684696	980	81 - 305	10732	Phe-5 to Gly-10, Pro-32 to Cys-40.	H0305: 1 and H0589: 1.		
HCWDS40	523301	981	182 - 439	10733	Arg-1 to Thr-8.	H0305: 5 and H0589: 1.		
HCWDS41	669754	982	3 - 365	10734	Asp-8 to Ala-21, Pro-23 to Ala-32, Leu-34 to Val-49.	H0305: 3		
HCWDS48	861849	983	163 - 438	10735	Arg-10 to Gln-25, Ser-69 to Phe-84.	H0305: 2, H0589: 1 and L0520: 1.		
HCWDS52	771881	984	46 - 204	10736	Tyr-23 to Lys-29.	H0305: 2 and H0589: 1.		
HCWDS55	861943	985	26 - 454	10737	Arg-4 to Gly-10, Ser-13 to Asn-18.	H0305: 3		

HCWDS59	934914	986	248 - 430	10738	Gln-29 to Val-36.	H0305: 2 and H0589: 2.		
HCWDS61	741992	987	136 - 393	10739	Arg-9 to Arg-19.	H0305: 2		
HCWDS83	612257	988	181 - 492	10740		H0305: 2		
HCWDS91	557931	989	98 - 445	10741	Asn-8 to Gly-13.	H0305: 2		
HCWDS94	959650	990	3 - 191	10742	Ser-2 to Ser-7, Ala-16 to Ala-29.	H0305: 8		
HCWDT12	573487	991	146 - 301	10743	Tyr-34 to Cys-40.	H0305: 2		
HCWDT84	542238	992	3 - 242	10744	His-1 to Ala-16, Gly-22 to Cys-29.	H0305: 7		
HCWDV17	974478	993	32 - 697	10745	Ala-144 to Glu-151, Thr-162 to Thr-168.	AR089: 12, AR061: 6 H0305: 4		
HCWDV82	529210	994	1 - 138	10746	Arg-1 to Cys-10, Gly-25 to Ala-35.	H0305: 2		
HCWDW05	852997	995	108 - 212	10747	Ser-1 to Trp-9, Arg-14 to Glu-26.	H0305: 1 and H0589: 1.		
HCWDW08	861936	996	2 - 193	10748		H0305: 4		
HCWDW13	523236	997	114 - 317	10749		H0305: 4		
HCWDW17	849938	998	3 - 224	10750	Leu-57 to Arg-69.	H0305: 2		
HCWDW29	849939	999	26 - 202	10751	Ser-1 to Ser-9.	H0305: 2		
HCWDW33	573554	1000	16 - 141	10752		H0305: 2		
HCWDW42	462405	1001	170 - 370	10753		H0305: 2		
HCWDW43	714423	1002	74 - 229	10754	His-3 to Ala-10.	H0305: 2		
HCWDW57	927656	1003	3 - 167	10755		H0305: 3		
HCWDW61	574859	1004	115 - 273	10756	Leu-2 to Gln-7, Pro-36 to Gly-47.	H0305: 6		
HCWDW62	849960	1005	360 - 599	10757		H0305: 7 and H0589: 2.	21q11.1	
HCWDW73	861934	1006	46 - 303	10758		H0305: 3		
HCWDW74	952698	1007	162 - 329	10759	Ser-8 to Gly-13.	H0589: 2 and H0305: 1.		
HCWDW78	773698	1008	1 - 270	10760	Asp-65 to Leu-71.	H0305: 2		
HCWDW90	529233	1009	19 - 165	10761	Lys-18 to Gln-24, Ala-33 to Ser-39.	H0305: 2		
HCWDW93	574155	1010	1 - 150	10762	Thr-7 to Cys-12, Thr-28 to Asp-36, Phe-39 to Asn-48.	H0305: 2		
HCWDW94	753166	1011	489 - 824	10763		H0305: 2, H0589: 1 and		

						H0543: 1.		
HCWDW96	975401	1012	1 - 66	10764	Met-2 to Asn-12.	H0306: 4 and H0305: 3.		
HCWDX19	523233	1013	264 - 461	10765		H0305: 3 and H0589: 1.		
HCWDX22	967361	1014	69 - 242	10766	Val-19 to Pro-25, Thr-31 to Leu-44.	H0305: 3 and H0589: 1.		
HCWDX36	861932	1015	69 - 323	10767	Pro-5 to His-12, Arg-52 to His-57, His-64 to Asp-69.	H0305: 2, L0749: 2 and H0589: 1.		
HCWDX39	573574	1016	48 - 239	10768	Asn-1 to Gly-19, His-21 to Thr-26.	H0305: 2		
HCWDX52	661568	1017	346 - 549	10769	Lys-1 to Ile-7, Gly-33 to Tyr-44.	H0305: 3 and H0589: 1.		
HCWDX65	920877	1018	1 - 213	10770	Gly-1 to Gly-9, Arg-53 to Asn-60.	H0305: 6		
HCWDX76	932614	1019	2 - 238	10771	Ala-1 to Asp-6, Ala-8 to Gly-14.	H0305: 3		
HCWDX85	861933	1020	106 - 342	10772		H0305: 2 and H0591: 1.		
HCWDY47	573557	1021	70 - 273	10773		H0305: 3		
HCWDZ13	657398	1022	3 - 248	10774		H0305: 6		
HCWDZ89	576697	1023	33 - 164	10775		H0305: 2 and H0589: 1.		
HCWEA30	681277	1024	2 - 187	10776	Lys-14 to Gln-19, Phe-28 to Trp-38, His-41 to Asp-56.	H0305: 1 and H0589: 1.		
HCWEA65	849918	1025	87 - 218	10777		H0305: 2		
HCWEA77	666180	1026	6 - 314	10778	Thr-1 to Leu-8, Arg-25 to Arg-33.	H0305: 1, H0589: 1 and H0318: 1.		
HCWEA78	697596	1027	3 - 308	10779	Asp-29 to Trp-35, Lys-37 to Thr-48, Asp-93 to Pro-99.	H0589: 3 and H0305: 1.		
HCWEA82	719028	1028	68 - 214	10780		H0305: 2		
HCWEA84	506718	1029	2 - 223	10781	Val-16 to Ile-24, Lys-40 to His-47.	H0305: 2		
HCWEA86	574858	1030	87 - 179	10782		H0305: 2		
HCWEB11	975408	1031	2 - 79	10783	Glu-1 to Lys-7.	H0305: 6, H0306: 1 and H0402: 1.		
HCWEB25	925102	1032	2 - 226	10784	Arg-22 to Trp-28.	H0305: 3, S0218: 1 and		

						H0264: 1.		
HCWEB28	932114	1033	129 - 353	10785	Gly-41 to Glu-47.	H0305: 6		
HCWEB33	925286	1034	144 - 362	10786		H0305: 5		
HCWEB37	849854	1035	29 - 256	10787		H0305: 3		
HCWEB40	514584	1036	210 - 1	10788	Leu-7 to Leu-13, Ser-21 to His-27.	H0305: 3		
	711336	9550	23 - 238	19302	Gln-14 to His-20, Thr-27 to Asp-43.			
HCWEB56	527051	1037	169 - 390	10789		H0305: 3 and H0589: 3.		
HCWEB71	573147	1038	145 - 342	10790	Leu-8 to Gly-20, Asp-28 to Tyr-33.	H0305: 3		
HCWED11	948689	1039	42 - 221	10791	Thr-35 to Thr-47.	H0305: 2, H0589: 1 and L0752: 1.		
HCWED13	573413	1040	232 - 360	10792		H0305: 5		
HCWED61	971865	1041	2 - 289	10793		H0305: 1, L0363: 1, H0187: 1, H0576: 1 and L0748: 1.		
HCWEE02	920544	1042	2 - 202	10794		H0305: 2		
HCWEE03	924743	1043	72 - 404	10795		H0305: 3 and L0779: 1.		
HCWEE07	953731	1044	149 - 304	10796	Gly-6 to Gly-12.	H0305: 3		
HCWEE22	572960	1045	2 - 352	10797	Pro-37 to Gly-48.	H0305: 3		
HCWEE74	738264	1046	2 - 319	10798	Ala-9 to Pro-17.	H0305: 2		
HCWEE76	770169	1047	121 - 291	10799	Gln-3 to Cys-14.	H0305: 3		
HCWEE83	781302	1048	3 - 227	10800	Ala-1 to Asp-13.	H0305: 2		
HCWEF56	573570	1049	3 - 461	10801	Pro-42 to Asp-48.	H0305: 4		
HCWEF91	849919	1050	21 - 293	10802	Pro-1 to Arg-8, Arg-18 to Ser-42.	H0305: 3		
HCWEF92	573568	1051	78 - 362	10803	Phe-8 to Gln-13.	H0305: 3		
HCWEF95	526766	1052	1 - 297	10804		H0305: 5		
HCWEG09	523251	1053	2 - 292	10805	Thr-12 to Thr-17.	H0305: 3		
HCWEG23	531421	1054	112 - 354	10806	Asp-18 to Gln-24, Pro-42 to Asp-49, Pro-76 to Tyr-81.	H0305: 3		
HCWEG31	693687	1055	2 - 247	10807	Ser-13 to Val-18, Pro-43 to Trp-49.	H0305: 2		
HCWEG47	574191	1056	84 - 215	10808	Gly-34 to Leu-40.	H0305: 2		

HCWEG51	964642	1057	69 - 203	10809	Glu-3 to Ile-19, Ser-33 to Glu-42.	H0305: 5		
HCWEG69	948693	1058	3 - 248	10810		H0305: 3		
HCWEG70	881254	1059	177 - 443	10811		H0305: 2		
HCWEG86	572980	1060	36 - 371	10812	Gln-43 to Cys-52, Pro-76 to Arg-81, Ser-87 to Ala-94, Arg-96 to Arg-112.	H0305: 1 and H0589: 1.		
HCWEH27	527050	1061	65 - 403	10813	Leu-1 to Asn-6, His-48 to Ser-59, Cys-76 to Gly-83.	H0305: 6		
HCWEH53	967056	1062	66 - 320	10814		H0305: 3 and H0589: 1.		
HCWEH76	574187	1063	171 - 332	10815	Thr-9 to Thr-15, Ser-32 to Leu-46.	H0305: 2		
HCWEH93	933146	1064	3 - 326	10816	His-1 to Thr-12.	H0305: 3		
HCWEH94	667919	1065	757 - 284	10817		H0305: 3 and H0255: 1.		
HCWEI19	948690	1066	178 - 309	10818		AR089: 4, AR061: 2 H0305: 2		
HCWEI30	666625	1067	67 - 273	10819	Val-11 to Leu-18.	H0305: 2		
HCWEI43	573508	1068	101 - 244	10820	Trp-8 to Thr-14, Phe-20 to Pro-26.	H0305: 2		
HCWEI45	576852	1069	1 - 99	10821		H0305: 2 and H0423: 1.		
HCWEI78	861918	1070	1 - 267	10822		H0305: 1 and H0589: 1.		
HCWEI80	573534	1071	11 - 220	10823		H0305: 2		
HCWEI83	529351	1072	1 - 273	10824	Pro-22 to Ser-27, Pro-30 to Thr-36, Arg-43 to Glu-55, Pro-57 to Cys-63, Pro-76 to Ala-86.	H0305: 2 and H0589: 1.		
HCWEI91	529650	1073	3 - 323	10825	Thr-28 to Ala-40, Lys-91 to Gln-99.	H0305: 3		
HCWEJ02	920488	1074	155 - 463	10826	Ser-1 to Met-15, His-17 to Arg-38.	H0305: 2 and H0589: 1.		
HCWEJ08	959734	1075	202 - 438	10827	Pro-18 to Ala-26.	H0305: 5 and H0589: 2.		
HCWEJ22	954137	1076	1 - 297	10828		H0305: 4 and H0589: 1.		
HCWEJ26	576717	1077	131 - 379	10829	Pro-41 to Pro-46.	H0305: 2, L0764: 2, L0590:		

						2, H0650: 1 and H0486: 1.		
HCWEJ43	573526	1078	76 - 333	10830	Thr-2 to Arg-9.	H0305: 3		
HCWEJ69	757674	1079	11 - 214	10831		S0114: 1, H0305: 1, L0761: 1 and L0662: 1.		
HCWEJ91	572857	1080	94 - 228	10832		H0305: 3		
HCWEK59	855734	1081	1 - 231	10833		H0305: 2		
HCWEK74	573134	1082	188 - 484	10834	Ser-33 to Leu-40.	H0305: 3		
HCWEK80	574157	1083	1 - 324	10835	Asp-25 to Gly-32, Ser-40 to His-45, Leu-51 to Gly-56.	H0305: 3		
HCWEK84	572843	1084	123 - 254	10836	Pro-6 to Cys-19, Glu-26 to Gln-34.	H0305: 2 and H0589: 1.		
HCWEK89	861914	1085	37 - 258	10837	Lys-1 to Ser-8.	H0305: 2		
HCWEL01	916972	1086	1 - 249	10838	Asp-1 to Leu-12, Asn-34 to Ser-39, Pro-77 to Arg-82.	H0305: 2		
HCWEL08	881309	1087	1 - 153	10839	Ala-18 to Arg-23, Tyr-40 to Gly-45.	H0305: 2		
HCWEL18	827387	1088	1 - 279	10840	Asp-45 to Arg-52.	H0305: 7		
HCWEL27	572846	1089	67 - 192	10841		H0305: 2		
HCWEL47	523304	1090	126 - 296	10842		H0305: 5 and H0589: 2.		
HCWEL52	577417	1091	23 - 463	10843	Thr-7 to Val-15, Lys-56 to Leu-63, Ser-70 to Gly-77.	H0305: 1 and H0271: 1.		
HCWEL55	572951	1092	155 - 295	10844		H0305: 2		
HCWEL96	529223	1093	1 - 192	10845		H0305: 3		
HCWEM10	968044	1094	131 - 232	10846	Asp-1 to Trp-9, Val-11 to Lys-21.	S0218: 1 and H0305: 1.		
HCWEM37	573151	1095	3 - 248	10847		H0305: 2 and H0589: 1.		
HCWEM51	920887	1096	3 - 392	10848	Gln-73 to Glu-82.	H0305: 3 and H0589: 1.		
HCWEN20	529237	1097	1 - 342	10849	Gly-71 to Leu-76.	H0305: 4		
HCWEN86	573527	1098	1 - 324	10850		H0305: 3		
HCWEP18	913670	1099	304 - 414	10851	Lys-23 to Leu-32.	H0305: 7 and H0589: 1.		
HCWEP34	523238	1100	107 - 448	10852	Lys-38 to Met-43.	H0305: 6		
HCWEP39	660232	1101	3 - 473	10853	His-1 to Leu-8.	H0305: 5		

HCWEP40	506759	1102	34 - 291	10854	Glu-1 to Lys-6.	H0305: 2		
HCWEP43	921346	1103	48 - 239	10855	Arg-29 to Cys-39.	H0305: 4		
HCWEQ01	861910	1104	110 - 208	10856		H0305: 3		
HCWEQ14	908245	1105	1 - 177	10857	Leu-43 to Tyr-48.	AR089: 39, AR061: 8 H0305: 3		
HCWEQ15	660520	1106	74 - 298	10858		H0305: 2		
HCWEQ27	849860	1107	120 - 404	10859	Gly-25 to Glu-34, Lys-55 to Gln-62, Ser-64 to Asn-71, Asn-74 to Pro-79.	H0305: 2 and H0589: 1.		
HCWEQ37	849985	1108	1 - 180	10860		H0305: 2		
HCWEQ89	529240	1109	169 - 324	10861	Thr-13 to Trp-19, Thr-29 to Arg-35.	H0305: 3		
HCWER22	674807	1110	26 - 103	10862	Val-3 to Glu-10.	H0305: 2		
HCWER37	849916	1111	1 - 381	10863	Asp-6 to Gly-11.	H0305: 3		
HCWER61	574921	1112	1 - 102	10864		H0305: 2		
HCWER81	574167	1113	268 - 378	10865	Phe-3 to Asn-9.	H0305: 2		
HCWES03	921933	1114	198 - 380	10866	His-1 to Ala-6.	H0305: 2 and S0052: 1.		
HCWES06	935862	1115	41 - 148	10867	Arg-7 to Thr-17, Pro-29 to Glu-35.	H0305: 1 and H0589: 1.		
HCWEW45	571355	1116	1 - 207	10868	Arg-1 to Gly-6, Glu-18 to Arg-51.	H0305: 2 and H0486: 1.		
HCWEW76	861966	1117	202 - 372	10869		H0305: 4 and L0517: 1.		
HCWEW77	664922	1118	213 - 419	10870	Ile-1 to Ser-6, Asp-11 to Thr-19.	H0305: 4		
HCWEX05	928121	1119	64 - 339	10871	Cys-11 to Ala-17.	H0305: 2		
HCWEX40	574940	1120	85 - 246	10872	Gln-26 to Lys-37, Glu-43 to Ser-52.	H0305: 2		
HCWEX59	709560	1121	83 - 349	10873	Tyr-11 to Phe-17.	H0305: 8 and H0589: 1.		
HCWEX66	731772	1122	163 - 294	10874	Glu-12 to Ser-19.	H0305: 2		
HCWEY07	953701	1123	2 - 424	10875	Ala-1 to Ser-8, Arg-52 to Asn-58.	H0305: 5		
HCWEY33	702597	1124	76 - 432	10876		H0305: 2		
HCWEY34	954142	1125	1 - 246	10877	Pro-2 to Gly-12.	H0305: 3		
HCWEY84	952692	1126	72 - 296	10878	Cys-25 to Val-31,	H0305: 2 and H0589: 1.		

					Lys-37 to Arg-42.			
HCWEY88	785508	1127	24 - 308	10879	Val-20 to Glu-25.	H0305: 2		
HCWFA14	925301	1128	42 - 311	10880	Ser-58 to His-63, Leu-65 to Cys-75.	H0305: 13 and H0589: 2.		
HCWFA65	573193	1129	95 - 250	10881		H0305: 2		
HCWFA88	578943	1130	87 - 281	10882		H0305: 2		
HCWFA89	574370	1131	12 - 248	10883		S0053: 2 and H0305: 1.		
HCWFC05	932194	1132	1 - 198	10884	Gly-1 to Pro-7.	H0305: 2		
HCWFC17	573186	1133	183 - 380	10885	Gly-9 to Glu-14, Gln-16 to Glu-22, Leu-27 to Ser-40.	H0305: 2		
HCWFC65	883787	1134	3 - 287	10886	His-1 to Gly-9.	H0305: 3		
HCWFD07	953700	1135	295 - 534	10887	Gly-59 to Gln-65.	H0305: 2 and H0589: 1.		
HCWFD19	574915	1136	1 - 279	10888	Pro-24 to Cys-29.	H0305: 2		
HCWFD29	573381	1137	1 - 222	10889		H0305: 2		
HCWFD47	671946	1138	123 - 296	10890		H0305: 3 and L0666: 1.		
HCWFD64	954575	1139	1 - 111	10891	Ala-1 to Arg-8.	H0305: 4 and L0748: 1.		
HCWFE06	935856	1140	209 - 391	10892	Lys-20 to Ile-25.	H0305: 2		
HCWFE18	573445	1141	2 - 112	10893	Thr-16 to Lys-31.	H0305: 2		
HCWFF41	849978	1142	3 - 149	10894	Glu-2 to Gly-24.	H0305: 2		
HCWFF88	506577	1143	41 - 187	10895	Pro-1 to Gly-6, Ala-41 to Leu-47.	AR089: 15, AR061: 6 H0305: 2		
HCWFJ65	578936	1144	1 - 126	10896	Leu-13 to Arg-24.	H0305: 2		
HCWFJ72	856908	1145	267 - 482	10897		H0255: 1, H0305: 1, H0589: 1, H0635: 1 and L0384: 1.		
HCWFK16	849988	1146	3 - 161	10898	Val-2 to Thr-7.	H0305: 2		
HCWFK20	575696	1147	14 - 238	10899		H0305: 2		
HCWFK35	916795	1148	3 - 260	10900	Val-3 to Arg-10.	H0305: 7, H0255: 1 and L0766: 1.		
HCWFK57	861907	1149	13 - 276	10901	Thr-72 to Asn-80.	AR089: 1, AR061: 1 H0305: 3 and H0589: 1.		
HCWFK73	761655	1150	2 - 184	10902	Pro-50 to Lys-56.	H0305: 2		
HCWFK91	954008	1151	2 - 157	10903	Glu-35 to Thr-47.	H0305: 3		
HCWFL10	964853	1152	2 - 331	10904	Pro-1 to Gly-7, Arg-48 to Ala-55,	H0305: 2		

					Ser-66 to Asp-87.			
HCWFL31	953579	1153	3 - 179	10905		H0305: 3 and L0518: 1.		
HCWFL45	577950	1154	200 - 415	10906		H0305: 3		
HCWFL78	529218	1155	3 - 170	10907	Lys-1 to Ala-9.	H0305: 6		
HCWFL86	523359	1156	125 - 295	10908	His-25 to Cys-33.	H0305: 6		
HCWFL94	575522	1157	75 - 230	10909		H0305: 3, L0740: 2 and L0596: 1.		
HCWFM01	916803	1158	106 - 231	10910		H0305: 1 and H0589: 1.		
HCWFM11	959457	1159	26 - 379	10911		H0305: 2		
HCWFM16	678627	1160	80 - 379	10912	Asp-18 to Thr-25.	H0305: 2 and L0750: 1.	22q13.31	250100, 250800, 250800
HCWFM26	677348	1161	2 - 313	10913	Tyr-27 to Leu-33.	H0305: 3		
HCWFM43	715387	1162	3 - 101	10914	Pro-17 to Ile-23.	H0305: 2		
HCWFM59	757660	1163	85 - 219	10915		H0305: 3		
HCWFM60	740470	1164	244 - 390	10916		H0305: 2		
HCWFM65	849957	1165	93 - 233	10917	Ala-1 to Lys-7.	H0305: 6 and H0589: 1.		
HCWFM77	706488	1166	1 - 165	10918		H0305: 1, H0589: 1 and S0426: 1.		
HCWFN14	680404	1167	70 - 288	10919	Gly-50 to Lys-62.	H0305: 3		
HCWFN22	674750	1168	3 - 155	10920	Val-9 to Ser-14.	H0305: 3 and H0589: 1.		
HCWFN37	576547	1169	96 - 206	10921		H0305: 2		
HCWFO01	916814	1170	135 - 371	10922		H0305: 3 and H0589: 1.		
HCWFO02	920416	1171	2 - 175	10923	Asn-53 to Arg-58.	H0305: 2		
HCWFO20	577709	1172	93 - 269	10924		H0305: 3		
HCWFO24	664581	1173	45 - 272	10925		H0305: 3 and H0589: 1.		
HCWFO30	692814	1174	70 - 231	10926	Gly-34 to His-45.	H0305: 2		
HCWFO40	913855	1175	102 - 419	10927	Lys-37 to Trp-46, Arg-68 to Trp-73.	H0305: 3		
HCWFO51	725756	1176	2 - 85	10928	Lys-8 to Met-20.	H0305: 1 and H0589: 1.		
HCWFP21	531288	1177	195 - 437	10929	Gly-23 to Gly-30, Lys-32 to Leu-42.	H0305: 6		
HCWFP27	927700	1178	2 - 232	10930		H0305: 7		
HCWFP47	849893	1179	1 - 411	10931	Ser-47 to Ser-78.	AR089: 2, AR061: 0 H0305: 3		
HCWFP71	933211	1180	169 - 354	10932		H0305: 5 and H0589: 1.		

HCWFP81	576363	1181	124 - 318	10933	Lys-4 to Met-12, Ser-17 to Ser-24, Arg-37 to Lys-43.	H0305: 2		
HCWFR11	967266	1182	2 - 121	10934		H0305: 2		
HCWFR83	721373	1183	100 - 258	10935	Thr-12 to Thr-20.	H0305: 1 and H0589: 1.		
HCWFS22	971566	1184	68 - 379	10936	Arg-19 to Arg-28, Pro-41 to Ser-47.	H0305: 3 and L0794: 1.		
HCWFS65	572953	1185	3 - 245	10937	His-1 to Gln-8, Arg-10 to Glu-15, Arg-21 to Ala-27, Ala-67 to Asp-72.	H0305: 3		
HCWFT29	690751	1186	48 - 236	10938	Ser-18 to Thr-23, Gly-35 to Glu-45.	H0305: 2		
HCWFT33	959471	1187	118 - 2	10939	Ser-12 to Thr-21.	H0305: 7		
HCWFT44	935855	1188	1 - 318	10940	Leu-9 to Asp-14.	H0305: 6		
HCWFT77	739571	1189	15 - 218	10941		H0305: 2		
HCWFT84	542236	1190	199 - 408	10942	Ser-21 to Ser-32.	H0305: 6		
HCWFU03	921944	1191	143 - 319	10943	Thr-24 to Ser-30, Lys-54 to Lys-59.	H0305: 2, L0542: 1, L0779: 1, L0758: 1 and L0600: 1.		
HCWFU07	861902	1192	1 - 84	10944	Ser-18 to Ser-27.	H0305: 2		
HCWFU19	577315	1193	1 - 333	10945		H0305: 2		
HCWFU32	716340	1194	79 - 258	10946	Lys-49 to Thr-60.	H0305: 3 and H0589: 2.		
HCWFU64	577888	1195	3 - 206	10947		H0305: 3, L0368: 1 and L0779: 1.		
HCWFU66	853005	1196	3 - 311	10948		AR061: 1, AR089: 1 H0305: 1 and H0589: 1.		
HCWFU76	576839	1197	177 - 293	10949	Gly-14 to Ala-19, Leu-22 to Tyr-39.	H0305: 2		
HCWFU83	574864	1198	95 - 310	10950	Asp-1 to Pro-12, Pro-25 to Ala-35.	H0305: 4 and H0402: 1.		
HCWFV16	849953	1199	158 - 367	10951	Ser-34 to Gly-44, Pro-55 to Arg-62.	H0305: 2 and H0589: 1.		
HCWFV21	849905	1200	136 - 312	10952	Ser-47 to Lys-54.	H0305: 4		
HCWFV25	733993	1201	3 - 233	10953	Leu-48 to Arg-54.	H0305: 5, H0589: 3, L0748: 3, H0402: 1, L0518: 1, L0809: 1 and H0445: 1.		

HCWFV32	960099	1202	64 - 153	10954	Arg-1 to Glu-9, Ala-21 to Pro-30.	H0305: 3		
HCWFV34	577896	1203	2 - 301	10955		H0305: 2 and H0589: 1.		
HCWFV37	575715	1204	3 - 167	10956	Val-8 to Arg-15, Ile-36 to Glu-42.	H0305: 3 and H0589: 1.		
HCWFV50	723666	1205	39 - 446	10957	Gly-1 to Pro-7.	H0305: 3 and H0589: 1.		
HCWFV69	527087	1206	80 - 208	10958	Asn-22 to Ser-28.	H0305: 4 and H0589: 2.		
HCWFW51	671807	1207	211 - 507	10959	Lys-4 to Gln-10, Ala-30 to Glu-36.	H0305: 2, H0063: 1 and L0635: 1.		
HCWFX23	675902	1208	3 - 191	10960		H0305: 2		
HCWFX30	825920	1209	199 - 336	10961	Ile-13 to Asn-18.	H0305: 2		
HCWFX44	703028	1210	34 - 450	10962	Thr-27 to Leu-43.	H0305: 2 and L0748: 1.		
HCWFZ30	692719	1211	97 - 252	10963		H0305: 2 and H0589: 1.		
HCWFZ56	733414	1212	92 - 307	10964	Ser-9 to Tyr-18.	H0305: 1 and S0053: 1.		
HCWGA27	861968	1213	200 - 337	10965		H0305: 3 and H0589: 1.	14q32	123270, 245200, 251600, 270100, 276900
HCWGA32	699272	1214	94 - 285	10966	Ser-16 to Asp-28, Ser-48 to Ser-53.	H0305: 2		
HCWGB61	733105	1215	3 - 230	10967	Phe-1 to His-7, Pro-52 to Ser-57.	H0305: 1 and H0589: 1.		
HCWGB64	578734	1216	56 - 166	10968	Ile-12 to Ser-18.	H0305: 3		
HCWGB78	861843	1217	111 - 392	10969	Cys-23 to Phe-33.	AR089: 2, AR061: 1 H0305: 2 and H0589: 1.		
HCWGC02	917348	1218	75 - 257	10970	Lys-7 to Ser-12.	H0305: 2 and H0589: 1.		
HCWGC50	772358	1219	147 - 392	10971	His-36 to Tyr-45, Thr-52 to Pro-64, Pro-66 to Glu-74.	H0305: 3		
HCWGD20	906973	1220	191 - 379	10972	Ser-1 to Asp-11, Leu-13 to Gly-25.	H0305: 3		
HCWGD33	849909	1221	57 - 209	10973		H0305: 2		
HCWGD66	496411	1222	49 - 189	10974		H0305: 2		
HCWGE12	967067	1223	211 - 300	10975		AR061: 1, AR089: 0 H0305: 3		
HCWGE22	727967	1224	72 - 239	10976		H0305: 2		

HCWGE23	853004	1225	229 - 441	10977		H0305: 4 and H0589: 1.		
HCWGE25	657236	1226	3 - 377	10978	Glu-22 to Glu-28, Leu-107 to Met-116.	H0305: 4 and H0589: 2.		
HCWGE39	705403	1227	2 - 61	10979	Ala-1 to Thr-6.	H0305: 2, L0666: 1 and L0749: 1.		
HCWGE47	925105	1228	231 - 359	10980		H0305: 2 and H0589: 2.		
HCWGE53	728249	1229	3 - 188	10981	His-1 to Trp-14.	H0305: 2		
HCWGE65	720349	1230	173 - 361	10982	Lys-41 to Pro-47.	H0305: 4		
HCWGE73	757333	1231	3 - 212	10983		H0305: 2		
HCWGE78	527557	1232	199 - 339	10984	Gln-2 to Gly-12.	H0305: 2		
HCWGE92	792722	1233	32 - 286	10985	Arg-9 to Ser-15, Thr-40 to Lys-47, Gly-58 to Asn-71, Gly-75 to Glu-85.	H0305: 2	15q22	102578, 109700, 151670, 154550, 601780
HCWGF06	935492	1234	28 - 282	10986	Arg-35 to Asn-47.	H0305: 4		
HCWGF71	960089	1235	208 - 402	10987	Gly-10 to Glu-34.	H0305: 5 and H0589: 1.		
HCWGF74	529235	1236	3 - 245	10988	Pro-1 to Arg-14, Leu-34 to Arg-40.	H0305: 2		
HCWGF75	682351	1237	173 - 313	10989	Glu-27 to Gln-32.	H0305: 2 and H0589: 1.		
HCWGF76	752789	1238	3 - 296	10990	Ser-26 to Arg-36, Leu-41 to Lys-49, Asn-54 to Lys-72.	H0305: 1 and H0589: 1.		
HCWGF91	754244	1239	43 - 153	10991		H0305: 2		
HCWGF92	861865	1240	94 - 306	10992	Lys-1 to Lys-7, Ser-20 to Ser-27.	H0305: 4 and H0445: 1.		
HCWGQ07	849889	1241	152 - 376	10993	Ser-53 to Ser-58.	H0305: 1 and H0589: 1.		
HCWGQ39	849891	1242	407 - 538	10994	Asp-1 to Phe-9, Phe-13 to Ile-18.	H0305: 3 and H0589: 3.		
HCWGQ62	916454	1243	18 - 362	10995	Lys-9 to Cys-17.	H0305: 3 and H0589: 1.		
HCWGQ71	710828	1244	1 - 306	10996	Gly-1 to Gly-11.	H0305: 1 and H0589: 1.		
HCWGQ80	529242	1245	92 - 259	10997	Lys-8 to Thr-16.	H0305: 3 and H0589: 2.		
HCWGQ84	853106	1246	192 - 401	10998	Pro-36 to Arg-43.	H0305: 2		
HCWGR34	923577	1247	52 - 132	10999	Pro-22 to Ser-27.	H0305: 1 and H0589: 1.		
HCWGR43	734888	1248	183 - 314	11000		H0305: 3 and L0529: 1.		
HCWGR47	719518	1249	59 - 196	11001	Met-3 to Ser-13,	H0305: 2		

					Asn-20 to Glu-36.			
HCWGR48	690954	1250	83 - 181	11002		H0305: 2		
HCWGR69	849946	1251	28 - 366	11003	Gly-7 to Trp-13.	H0305: 3 and H0589: 2.		
HCWGR76	778293	1252	98 - 268	11004		H0305: 1 and H0264: 1.		
HCWGR88	736056	1253	21 - 182	11005		H0305: 3		
HCWGT45	913730	1254	378 - 551	11006	Ala-1 to Gln-14, His-35 to Asp-45.	L0748: 2, H0402: 1, H0305: 1, H0589: 1, L0040: 1 and L0519: 1.		
HCWGT49	527085	1255	19 - 207	11007		H0305: 3		
HCWGT66	531374	1256	45 - 311	11008	Arg-27 to Cys-32, Val-61 to Gly-66.	H0305: 3 and H0589: 1.		
HCWGU11	967064	1257	87 - 233	11009	Ala-8 to Cys-13, Asn-35 to Asp-49.	H0305: 2, L0761: 1 and L0779: 1.		
HCWGU49	674752	1258	61 - 240	11010	Gln-3 to Lys-11.	H0305: 4, H0589: 1, L0764: 1 and L0527: 1.		
HCWGU57	705637	1259	31 - 129	11011	Glu-15 to Arg-22, Glu-27 to Arg-32.	H0305: 2		
HCWGU86	666943	1260	126 - 287	11012	Asp-1 to Trp-15, Ser-23 to Phe-28.	H0305: 3		
HCWGW10	935865	1261	88 - 396	11013	Thr-48 to Gln-55.	H0305: 4 and H0589: 3.		
HCWGW12	964088	1262	262 - 387	11014	Ala-1 to Leu-7.	H0305: 4 and H0589: 1.		
HCWGW13	849911	1263	95 - 409	11015	Pro-58 to Leu-63.	H0305: 3		
HCWGW32	615553	1264	2 - 253	11016	Lys-31 to Asp-37.	H0305: 2 and S0053: 1.		
HCWGW63	745091	1265	1 - 69	11017	Ile-2 to Glu-9.	H0305: 2		
HCWGW80	742103	1266	1 - 165	11018	Leu-42 to Lys-47.	H0305: 2 and L0750: 1.		
HCWGW85	556369	1267	2 - 193	11019		H0305: 7 and H0589: 1.		
HCWGW86	785506	1268	13 - 162	11020	Leu-7 to Gly-12, Glu-35 to Ser-46.	H0305: 2		
HCWGW95	958780	1269	2 - 292	11021		H0305: 1 and H0589: 1.		
HCWGX05	902512	1270	733 - 1089	11022	Pro-41 to Ala-49, Ser-58 to Ile-64, Ser-85 to Trp-91, Leu-105 to Lys-119.	AR050: 57, AR054: 55, AR051: 47 H0305: 4, H0589: 1, H0063: 1 and H0521: 1.		
	972300	9551	1691 - 2062	19303	Pro-18 to Gln-23, Phe-25 to Ser-34, Asn-58 to Asn-67,			

					Gln-74 to Glu-79, Arg-99 to Arg-114, Gly-118 to Phe-124.			
HCWGX23	720486	1271	2 - 235	11023	Ala-1 to Ala-16.	H0305: 2		
HCWGX41	849887	1272	2 - 184	11024	Lys-29 to Gly-35.	H0305: 3		
HCWGX58	920693	1273	2 - 241	11025	Thr-40 to Leu-48, Val-75 to Gln-80.	H0305: 6, S0114: 1, L0142: 1, L0520: 1 and L0599: 1.		
HCWGX68	733413	1274	40 - 129	11026		H0305: 2 and H0589: 1.		
HCWGX82	924102	1275	109 - 237	11027		H0305: 5 and H0589: 2.		
HCWGX94	793197	1276	32 - 184	11028		H0305: 2		
HCWGY02	920113	1277	2 - 361	11029		H0305: 4		
HCWGY03	924208	1278	260 - 87	11030	Lys-1 to Ala-12.	H0305: 5		
HCWGY12	970693	1279	1 - 258	11031		H0305: 3		
HCWGY20	669717	1280	155 - 310	11032		H0305: 2		
HCWGY33	702441	1281	1 - 213	11033	Gly-1 to Pro-10, Asn-46 to Pro-55.	H0305: 3 and S0052: 1.		
HCWGY43	660568	1282	138 - 242	11034		H0305: 2 and L0753: 1.		
HCWGY64	670896	1283	2 - 208	11035	Lys-11 to Arg-17, Ser-32 to Lys-37, Thr-48 to Gln-58.	H0305: 2		
HCWGY67	861886	1284	1 - 312	11036	Leu-14 to Leu-23.	H0305: 2		
HCWGY76	496402	1285	145 - 291	11037	Tyr-43 to His-49.	H0305: 2		
HCWGY85	917132	1286	2 - 352	11038	Ser-30 to Arg-43.	H0305: 2		
HCWGY86	711312	1287	276 - 473	11039		H0305: 2		
HCWGY90	960159	1288	3 - 203	11040		AR089: 12, AR061: 3 H0305: 5		
HCWHA03	924189	1289	1 - 150	11041	Asp-12 to Gln-20.	H0305: 1 and H0589: 1.		
HCWHA09	968224	1290	2 - 148	11042	Cys-16 to His-25, Thr-33 to Lys-40.	H0305: 3		
HCWHA10	961278	1291	178 - 390	11043	Leu-13 to Glu-26, Arg-53 to Glu-58.	H0305: 3		
HCWHA55	731770	1292	52 - 156	11044	Leu-22 to Leu-29.	H0305: 3		
HCWHA56	733424	1293	63 - 173	11045		H0305: 1, H0589: 1, L0766: 1, L0779: 1 and L0604: 1.		
HCWHA84	733421	1294	41 - 301	11046	Pro-27 to Lys-35,	H0305: 3		

					His-49 to Asp-56, Lys-64 to Glu-71.			
HCWHB12	970688	1295	2 - 286	11047	Glu-7 to Asp-13, Glu-17 to Arg-25.	H0305: 6		
HCWHB32	966508	1296	58 - 297	11048		H0305: 2 and H0589: 1.		
HCWHB65	711437	1297	1 - 87	11049		H0305: 2		
HCWHB68	573571	1298	119 - 331	11050		H0305: 4 and H0589: 1.		
HCWHC01	849886	1299	67 - 231	11051		H0305: 2		
HCWHC26	950719	1300	61 - 252	11052	Ala-12 to Gly-18, Ser-37 to Gly-48.	H0305: 2		
HCWHC35	706508	1301	222 - 362	11053	Thr-22 to Glu-28.	H0305: 2		
HCWHC37	706509	1302	1 - 312	11054		H0305: 2		
HCWHC50	591202	1303	358 - 543	11055		H0305: 1 and H0589: 1.		
HCWHC59	964852	1304	69 - 161	11056		H0305: 5		
HCWHD07	953384	1305	2 - 337	11057	Lys-7 to Glu-18, Pro-38 to Thr-51.	H0305: 2 and H0589: 1.		
HCWHD17	663865	1306	2 - 172	11058	Lys-10 to Trp-15.	H0305: 3		
HCWHD23	934917	1307	129 - 227	11059		H0589: 2 and H0305: 1.		
HCWHD68	690359	1308	111 - 335	11060		H0305: 3 and H0589: 1.		
HCWHF62	582472	1309	1 - 207	11061	Pro-33 to Arg-43.	L0748: 3, H0305: 2 and H0589: 1.		
HCWHF85	746745	1310	123 - 317	11062		H0305: 2		
HCWHJ15	968379	1311	1 - 105	11063		H0305: 4		
HCWHJ25	686712	1312	172 - 354	11064		H0305: 2		
HCWHJ48	721816	1313	1 - 354	11065	Gly-1 to Thr-8, Pro-19 to Arg-25.	H0305: 2		
HCWHJ53	693313	1314	135 - 425	11066	Phe-11 to Trp-16, Gly-30 to Lys-38, Ser-49 to Ala-57.	H0305: 2 and H0589: 2.		
HCWHJ55	861884	1315	145 - 318	11067	Ser-43 to Leu-58.	H0305: 4		
HCWHJ75	786019	1316	167 - 412	11068	Gly-32 to Gly-39, Trp-54 to Lys-65.	H0305: 2		
HCWHJ91	674157	1317	103 - 345	11069	Gln-28 to Thr-36, Ala-59 to Arg-64.	H0305: 1 and H0589: 1.		
HCWHL11	967057	1318	3 - 299	11070	Ala-1 to Val-13.	H0305: 3		

HCWHL36	465250	1319	309 - 491	11071	Arg-25 to Lys-31.	H0305: 2, L0766: 1 and L0747: 1.		
HCWHL42	959894	1320	30 - 233	11072		H0306: 2 and H0305: 2.		
HCWHL73	960097	1321	3 - 407	11073	Pro-10 to Cys-15, Gly-22 to Gln-27, Lys-54 to Arg-64, Glu-73 to Gly-81, Asp-89 to Ala-96, Trp-98 to Ser-104.	H0305: 6 and L0589: 1.		
HCWHL89	754087	1322	2 - 139	11074		H0305: 2		
HCWHN05	849885	1323	210 - 377	11075		H0305: 2, S0114: 1, H0402: 1 and H0444: 1.		
HCWHN28	529654	1324	70 - 330	11076		H0305: 2		
HCWHO38	573533	1325	169 - 426	11077	Pro-25 to Gly-36.	H0305: 3		
HCWHO45	717807	1326	34 - 288	11078	Gly-1 to Lys-13, Arg-47 to Ser-52, Gln-75 to Phe-85.	H0305: 1, H0589: 1 and S0428: 1.		
HCWHO78	960180	1327	77 - 208	11079	Ser-14 to Trp-26, Phe-39 to Tyr-44.	H0305: 3		
HCWHO93	924109	1328	2 - 169	11080		H0305: 3 and H0589: 1.		
HCWHP06	935483	1329	93 - 302	11081	Ser-25 to Ala-31.	H0305: 3 and H0402: 2.		
HCWHP25	881285	1330	19 - 474	11082		H0305: 6, L0748: 2 and L0528: 1.		
HCWHP40	577691	1331	228 - 395	11083		H0305: 5 and H0589: 1.		
HCWHP44	705392	1332	1 - 96	11084		H0305: 4 and L0749: 1.		
HCWHP70	711476	1333	163 - 303	11085	Pro-13 to Leu-22.	S0114: 1 and H0305: 1.		
HCWHP74	598510	1334	41 - 322	11086	Glu-1 to Glu-7, Phe-12 to Val-17, Gly-42 to Ser-49, Thr-52 to Thr-65.	H0305: 1 and H0589: 1.		
HCWHP84	849900	1335	3 - 164	11087		H0305: 2		
HCWHQ03	924187	1336	1 - 144	11088	Gly-1 to Ser-7, Gly-23 to Asn-28.	H0305: 4		
HCWHQ31	574945	1337	129 - 428	11089		AR089: 1, AR061: 1 H0305: 4		
HCWHQ82	677186	1338	292 - 429	11090		H0305: 2 and L0740: 1.		

HCWHR01	916526	1339	2 - 403	11091	Ser-16 to Ser-29, Leu-42 to Glu-50, Pro-76 to Gln-85.	H0305: 5		
HCWHR09	542336	1340	245 - 388	11092		H0305: 6 and H0589: 1.		
HCWHR59	739293	1341	195 - 572	11093		H0305: 2 and H0589: 1.		
HCWHR77	729850	1342	3 - 341	11094	Arg-1 to Thr-10, Pro-13 to Gly-25.	H0305: 3		
HCWHR81	935419	1343	71 - 277	11095	Val-1 to Glu-8, Thr-18 to Ser-23, Glu-47 to Pro-52.	AR089: 3, AR061: 1 H0305: 6		
HCWHS13	657230	1344	103 - 204	11096	Arg-26 to Pro-33.	H0305: 2		
HCWHS28	675051	1345	38 - 223	11097	Ser-34 to Gly-49.	H0305: 2		
HCWHS77	861875	1346	89 - 349	11098		H0305: 1 and H0589: 1.		
HCWHT50	527542	1347	75 - 305	11099	His-47 to Phe-53, Pro-59 to Ala-64.	H0305: 6		
HCWHT56	849979	1348	42 - 230	11100	Gln-24 to Val-31.	H0305: 3		
HCWHT59	924105	1349	106 - 333	11101		H0305: 3		
HCWHU22	849878	1350	63 - 329	11102		H0305: 3		
HCWHU30	974485	1351	75 - 404	11103	Ser-7 to Arg-14, Ser-16 to Ala-26, Pro-53 to Tyr-60.	H0305: 3		
HCWHU47	720340	1352	130 - 255	11104		H0305: 2		
HCWHU52	726054	1353	39 - 176	11105		H0305: 3		
HCWHU54	727314	1354	1 - 123	11106		H0305: 2		
HCWHU58	736052	1355	3 - 302	11107	Ser-3 to Ser-8, Glu-10 to Gln-17, Asp-24 to Asn-36, Pro-55 to Arg-69.	H0305: 2		
HCWHV11	964996	1356	1 - 213	11108		H0305: 2		
HCWHV18	466511	1357	145 - 342	11109		H0305: 3		
HCWHV28	686710	1358	253 - 444	11110	Pro-14 to Gln-20.	H0305: 1, H0589: 1 and L0748: 1.		
HCWHV33	702437	1359	3 - 200	11111		H0305: 1 and H0589: 1.		
HCWHV41	960157	1360	175 - 345	11112	Gln-25 to Gln-33, Thr-41 to Arg-47.	H0305: 3 and H0589: 1.		
HCWHV61	849983	1361	9 - 422	11113	Trp-1 to Arg-13.	H0305: 4		

HCWHV64	770049	1362	2 - 148	11114	Asp-9 to Ala-14.	H0305: 2 and L0745: 1.		
HCWHV66	923527	1363	252 - 479	11115	Pro-3 to Tyr-8.	H0305: 1 and H0589: 1.		
HCWHV71	917274	1364	269 - 502	11116	Gln-12 to Tyr-18, Lys-59 to Glu-68.	H0305: 3		
HCWHV94	953379	1365	169 - 345	11117	Ser-5 to Ser-12.	H0305: 5		
HCWHW32	861905	1366	236 - 559	11118		H0305: 3 and H0589: 1.		
HCWHW38	722213	1367	2 - 232	11119	Arg-53 to Gly-59.	AR051: 12, AR050: 1 H0305: 3		
	861870	9552	210 - 551	19304	Ala-1 to Gln-7, Lys-24 to Cys-34, Arg-90 to Gly-96.			
HCWHW83	841937	1368	26 - 220	11120	Trp-33 to Ser-38.	H0305: 5 and H0589: 1.		
HCWHX08	959456	1369	3 - 209	11121	Arg-45 to Pro-50.	H0305: 1, H0589: 1 and L0369: 1.		
HCWHX09	625596	1370	37 - 303	11122	Gly-1 to Cys-7, Tyr-28 to Ser-43.	H0589: 2 and H0305: 1.		
HCWHX72	849884	1371	2 - 247	11123	Ala-1 to Gly-7, Gly-12 to Gly-19, Pro-21 to Lys-31.	H0305: 3 and L0599: 1.		
HCWHX91	723178	1372	27 - 245	11124	Ala-45 to Arg-61.	H0305: 2		
HCWHX95	736004	1373	4 - 117	11125	Gly-4 to Gln-14, Cys-33 to Lys-38.	H0305: 2		
HCWHZ18	666452	1374	54 - 209	11126	Arg-11 to Phe-16.	H0305: 2, L0805: 1 and L0776: 1.		
HCWHZ51	725682	1375	124 - 315	11127	Ser-1 to Ile-7, Thr-26 to Ser-32, Pro-42 to Trp-48.	H0305: 2		
HCWHZ59	739294	1376	2 - 322	11128		H0305: 2		
HCWHZ83	781186	1377	3 - 92	11129		H0305: 2		
HCWHZ89	668670	1378	3 - 104	11130		H0305: 2		
HCWKA13	494088	1379	580 - 374	11131		H0305: 5		
	971148	9553	89 - 247	19305				
HCWKA21	670897	1380	129 - 266	11132	Gly-30 to Gln-36, Thr-38 to Pro-46.	H0305: 2		
HCWKA28	466763	1381	99 - 272	11133	Glu-1 to Gln-8.	H0305: 2		
HCWKA79	574911	1382	307 - 483	11134		H0305: 3		

HCWKA96	963621	1383	203 - 355	11135	Thr-14 to Val-20, Lys-37 to Asn-48.	H0305: 3, H0589: 1 and L0758: 1.		
HCWKB04	676904	1384	74 - 244	11136	Pro-50 to Ile-55.	L0776: 4, H0305: 2, H0589: 1, L0659: 1, L0438: 1 and L0756: 1.		
HCWKB10	964570	1385	202 - 408	11137	Pro-14 to Ser-30.	H0305: 3 and H0589: 2.		
HCWKC83	496385	1386	1 - 99	11138		H0305: 3		
HCWKD34	706520	1387	231 - 368	11139		H0305: 1 and H0589: 1.		
HCWKF08	959388	1388	1 - 216	11140		H0305: 1 and H0589: 1.		
HCWKF28	686655	1389	155 - 340	11141	Pro-15 to Gly-21, Pro-23 to Cys-28, Leu-40 to Asn-48.	H0305: 2		
HCWKF29	779862	1390	55 - 207	11142		H0305: 2		
HCWKG10	964577	1391	3 - 134	11143		H0305: 1 and H0589: 1.		
HCWKH08	959381	1392	71 - 310	11144	Arg-1 to Asp-9.	H0305: 1 and H0589: 1.		
HCWKH16	661898	1393	290 - 382	11145	Asn-1 to Trp-7.	H0305: 1 and H0589: 1.		
HCWKH25	678086	1394	146 - 307	11146		H0305: 2		
HCWKH36	924191	1395	102 - 206	11147		H0305: 3		
HCWKI31	678375	1396	1 - 75	11148		H0305: 2		
HCWKI77	920043	1397	347 - 457	11149		H0305: 2 and H0589: 2.		
HCWKI92	792689	1398	154 - 480	11150		H0305: 4		
HCWKJ23	934393	1399	323 - 478	11151		H0305: 2 and H0589: 2.		
HCWKJ40	861851	1400	233 - 409	11152	Leu-5 to Glu-12, Ser-34 to Lys-40.	H0305: 2		
HCWKJ60	968112	1401	102 - 365	11153	Gly-7 to Ile-13.	H0305: 6		
HCWKJ96	571302	1402	88 - 249	11154	Cys-16 to Cys-22, Lys-32 to Arg-42.	H0305: 6		
HCWKM28	849915	1403	1 - 357	11155		H0305: 4		
HCWKM31	697974	1404	2 - 169	11156	Ala-6 to Pro-12.	H0305: 2		
HCWKM58	849934	1405	10 - 246	11157		H0305: 4 and H0589: 1.		
HCWKM60	740347	1406	12 - 143	11158		H0305: 2 and S0052: 1.		
HCWKM88	792086	1407	20 - 148	11159	Met-5 to Asn-12.	H0305: 1 and H0589: 1.		
HCWKM90	960177	1408	152 - 310	11160	Leu-9 to Cys-18.	H0305: 5		
HCWKN08	959380	1409	24 - 284	11161	Pro-27 to Asn-34, Asn-48 to Leu-57.	H0305: 2		

HCWKN57	861537	1410	310 - 2	11162	Ser-13 to Pro-36, Thr-79 to Ser-89.	H0305: 3	
HCWKO51	959684	1411	330 - 494	11163	Thr-17 to Thr-27.	H0305: 2 and L0599: 1.	
HCWKO82	827083	1412	2 - 217	11164	Cys-49 to Ala-54.	H0305: 6	
HCWKP03	924104	1413	95 - 331	11165	Glu-9 to Pro-15, Gln-17 to Asp-24, Gly-46 to Lys-67.	H0305: 4	
HCWKP51	725653	1414	1 - 270	11166	Pro-15 to Arg-20.	H0305: 2	
HCWKP53	664923	1415	202 - 309	11167		H0305: 2	
HCWKP56	849861	1416	1 - 342	11168	Glu-1 to Ser-11, Ser-75 to Leu-81, Ser-86 to Thr-91.	H0305: 3 and H0589: 1.	
HCWKP63	732447	1417	79 - 246	11169	Lys-1 to Leu-27, Ser-29 to Lys-44, Arg-50 to His-55.	H0305: 2 and H0589: 1.	
HCWKQ31	849851	1418	108 - 326	11170	Glu-68 to Arg-73.	H0305: 2	
HCWKQ55	706487	1419	116 - 214	11171		H0305: 2 and H0589: 1.	
HCWKR13	917268	1420	323 - 153	11172		H0305: 5	
HCWKR80	527074	1421	30 - 398	11173		H0305: 4 and H0589: 1.	
HCWKS13	657194	1422	26 - 232	11174	Glu-1 to Cys-6.	H0305: 2, L0803: 1 and L0779: 1.	
HCWKT11	966989	1423	44 - 193	11175	Gly-36 to Thr-47.	H0305: 2	
HCWKT43	659539	1424	2 - 244	11176		H0305: 2	
HCWKT57	881629	1425	19 - 267	11177		H0305: 2	
HCWKT63	849944	1426	301 - 429	11178		H0305: 4	
HCWKV68	959801	1427	1 - 243	11179		H0305: 2	
HCWKV77	527554	1428	265 - 402	11180	Ser-9 to Gln-15.	H0305: 2	
HCWKV85	932540	1429	2 - 202	11181	Asp-8 to Cys-15.	H0305: 3	
HCWKX13	466512	1430	173 - 337	11182		S0114: 1 and H0305: 1.	
HCWKX61	676895	1431	18 - 164	11183	Phe-42 to Gly-47.	H0305: 4 and H0589: 2.	
HCWKX68	725014	1432	57 - 203	11184	Pro-33 to Thr-39.	H0305: 2	
HCWKX77	772163	1433	143 - 418	11185		H0589: 2 and H0305: 1.	
HCWKX81	724873	1434	132 - 368	11186		H0305: 3	
HCWLA68	665744	1435	3 - 161	11187	Val-12 to Cys-18, Arg-23 to Gly-29.	H0305: 1 and H0589: 1.	

HCWLD01	916439	1436	2 - 367	11188		L0655: 2, H0305: 1, H0581: 1, T0041: 1 and L0767: 1.		
HCWLD06	935392	1437	2 - 331	11189		H0305: 3 and H0589: 1.		
HCWLD30	933118	1438	264 - 133	11190	Leu-13 to Thr-27.	H0305: 1 and H0022: 1.		
HCWLD83	728219	1439	58 - 318	11191	Val-2 to His-11.	H0305: 2		
HCWLE11	880982	1440	57 - 413	11192	Glu-38 to Gly-46, Phe-79 to Phe-88, Ser-104 to Gly-112.	H0305: 6, H0402: 1 and L0659: 1.		
HCWLE34	576816	1441	218 - 385	11193		H0305: 2		
HCWLE37	960093	1442	20 - 412	11194	Ala-12 to Cys-23, Trp-30 to Gly-38, Pro-41 to Gly-48, Pro-51 to Gly-62, Gly-95 to Ser-105.	H0305: 2		
HCWLE46	719247	1443	76 - 528	11195	Ser-3 to His-8, Tyr-11 to Gly-28.	H0305: 4		
HCWLE57	764189	1444	33 - 227	11196	Glu-43 to Ser-52.	H0305: 2 and H0589: 1.		
HCWLE64	745863	1445	121 - 312	11197	Pro-10 to Arg-17, Gln-40 to Gly-50.	H0305: 2 and H0589: 1.		
HCWLE95	684331	1446	21 - 188	11198		H0305: 2		
HCWLH02	853014	1447	332 - 553	11199	Asp-1 to Pro-9, Ser-35 to Gln-43, His-63 to Gln-68.	H0305: 1 and H0589: 1.		
	919329	9554	279 - 64	19306	Gly-10 to Arg-17.			
HCWLH09	625558	1448	300 - 530	11200		H0305: 2		
HCWLH20	529356	1449	1 - 282	11201		H0305: 3		
HCWLH42	954875	1450	671 - 435	11202		H0305: 4		
HCWLH75	670202	1451	99 - 245	11203	Val-28 to Ala-34.	H0305: 4		
HCWLH78	935908	1452	148 - 366	11204		H0305: 4		
HCWLH79	959458	1453	226 - 447	11205	Pro-14 to His-22, Pro-31 to Gln-39.	H0305: 6		
HCWLH80	577886	1454	10 - 270	11206	Asn-2 to Thr-8, Ser-23 to Gly-35.	H0305: 4		
HCWSB09	923573	1455	99 - 239	11207	Gly-24 to Lys-33.	H0305: 1 and H0589: 1.		
HCWSB30	771897	1456	285 - 500	11208		H0305: 2 and H0589: 1.		
HCWSB65	728360	1457	36 - 182	11209	Gln-9 to Trp-18.	H0305: 2		

HCWTA02	919258	1458	65 - 223	11210		H0589: 2		
HCWTA59	531422	1459	18 - 146	11211	Glu-32 to Gln-38.	H0305: 3 and H0589: 1.		
HCWTB01	861850	1460	188 - 358	11212		S0116: 1, H0305: 1 and H0589: 1.		
HCWTB08	920509	1461	60 - 203	11213		H0305: 1 and H0589: 1.		
HCWTB11	965024	1462	3 - 299	11214	His-7 to Ala-14, Arg-42 to Arg-51, Glu-56 to Asp-61.	H0305: 2 and H0589: 2.		
HCWTB13	861029	1463	168 - 296	11215	Glu-6 to Arg-15.	H0305: 4, H0589: 1 and H0179: 1.		
HCWTB14	657621	1464	2 - 328	11216		H0305: 2 and H0589: 1.		
HCWTB25	677748	1465	3 - 236	11217	Gln-11 to Tyr-23, Arg-37 to Phe-44, Arg-66 to Arg-78.	H0589: 2		
HCWTB31	697615	1466	14 - 436	11218		H0305: 1 and H0589: 1.		
HCWTB33	702129	1467	138 - 350	11219		H0305: 1 and H0589: 1.		
HCWTB36	529499	1468	1 - 210	11220		H0305: 2 and H0589: 1.		
HCWTB38	732440	1469	1 - 309	11221	Pro-1 to Asp-6, Asp-24 to Pro-30.	H0589: 2 and H0305: 1.		
HCWTB56	853009	1470	2 - 346	11222		AR061: 5, AR089: 4 H0305: 2 and H0589: 1.		
HCWTB65	861848	1471	2 - 175	11223	Thr-1 to Asp-8, Arg-28 to Leu-34.	H0305: 1 and H0589: 1.		
HCWTB77	771887	1472	317 - 448	11224		H0589: 2		
HCWTB83	730832	1473	23 - 283	11225	Asp-5 to Thr-20.	H0305: 2 and H0589: 1.		
HCWTF05	849954	1474	1 - 318	11226	Trp-5 to Trp-17, Gly-30 to Lys-36.	H0305: 2 and H0589: 1.		
HCWTF11	966513	1475	346 - 621	11227		H0589: 2, S0114: 1 and H0305: 1.		
HCWTF19	668358	1476	3 - 149	11228	Met-32 to Lys-39.	H0589: 2 and H0305: 1.		
HCWTF72	760898	1477	189 - 362	11229	Asn-16 to Arg-26, Arg-37 to Gly-46.	H0589: 2 and H0305: 1.		
HCWTG01	915863	1478	2 - 175	11230	Thr-21 to Val-26, Lys-28 to Lys-36.	H0589: 3 and H0305: 2.		
HCWTG15	659860	1479	105 - 248	11231	Ser-21 to Thr-27.	H0589: 2		
HCWTG26	681271	1480	348 - 476	11232		H0305: 1 and H0589: 1.		

HCWTG30	954579	1481	84 - 197	11233	Leu-1 to Leu-7.	H0589: 4 and H0305: 3.		
HCWTG44	657911	1482	366 - 572	11234		H0589: 3		
HCWTG45	662482	1483	217 - 384	11235	Lys-34 to Leu-39.	H0589: 3		
HCWTG60	740078	1484	167 - 379	11236	Tyr-8 to Ser-14.	H0305: 1 and H0589: 1.		
HCWTG66	754823	1485	79 - 249	11237	Tyr-19 to Val-24.	H0589: 2		
HCWTG77	924107	1486	185 - 304	11238	Asn-16 to Gly-25.	H0589: 5 and H0305: 4.		
HCWTG81	773341	1487	104 - 334	11239	Pro-61 to His-67.	H0589: 2		
HCWTI25	669935	1488	118 - 345	11240	Gln-56 to Arg-63, Ala-65 to Leu-74.	H0589: 2 and H0305: 1.		
HCWTI33	701757	1489	192 - 323	11241	Ser-27 to Phe-34.	H0305: 1 and H0589: 1.		
HCWTI38	576883	1490	60 - 293	11242	Ser-4 to Glu-15.	H0305: 2 and H0589: 1.		
HCWTI44	689971	1491	82 - 225	11243	Thr-16 to Asn-21, Tyr-32 to Arg-37.	H0589: 2		
HCWTI47	720023	1492	163 - 279	11244		H0589: 2		
HCWTI54	723080	1493	108 - 188	11245		H0305: 1 and H0589: 1.		
HCWTJ01	915878	1494	1 - 336	11246	Ala-17 to Ser-32.	H0305: 1 and H0589: 1.		
HCWTJ50	724072	1495	42 - 257	11247	Ser-1 to Lys-18, Ser-40 to Arg-51.	H0589: 2		
HCWTL24	676906	1496	221 - 325	11248		H0305: 1 and H0589: 1.		
HCWTL25	598511	1497	165 - 329	11249		H0305: 1 and H0589: 1.		
HCWTL51	725482	1498	64 - 267	11250	Trp-4 to Gly-10, His-42 to Cys-50, Ser-53 to Gly-63.	H0589: 2		
HCWTL52	573539	1499	36 - 293	11251	Glu-18 to Leu-27, Gly-35 to Gln-40, Pro-46 to Thr-51, Arg-67 to Ser-76.	H0305: 2 and H0589: 1.		
HCWTL58	697623	1500	111 - 278	11252	Ile-1 to Arg-7, Leu-46 to Gln-51.	H0589: 2		
HCWTL69	960597	1501	188 - 454	11253	Pro-18 to Ser-25, Leu-42 to Arg-53.	H0589: 2		
HCWTL78	760707	1502	160 - 231	11254		H0305: 1 and H0589: 1.		
HCWTL85	836155	1503	1 - 153	11255	Asn-18 to Lys-23.	H0589: 2		
HCWTM16	661569	1504	2 - 391	11256	Thr-1 to Thr-11, Asp-59 to Gln-64,	H0305: 1, H0589: 1, H0581: 1 and L0565: 1.		

					Thr-90 to Thr-101.			
HCWTO06	934912	1505	16 - 360	11257	Cys-20 to His-27, Thr-34 to Ser-63, Arg-72 to Gly-78, Leu-89 to Met-99.	H0589: 2		
HCWTO29	660457	1506	2 - 277	11258	Leu-16 to Leu-24.	H0305: 1 and H0589: 1.		
HCWTO35	706525	1507	159 - 302	11259	Leu-1 to Ser-6, Ser-10 to Leu-17, Pro-43 to Arg-48.	H0589: 2		
HCWTO52	726444	1508	54 - 233	11260		H0305: 1, H0589: 1, L0667: 1 and L0752: 1.		
HCWTO60	681257	1509	2 - 205	11261		H0589: 2		
HCWTP13	656678	1510	78 - 311	11262	Arg-58 to Ser-67.	H0589: 2		
HCWTP22	674158	1511	182 - 370	11263		H0305: 1 and H0589: 1.		
HCWTP76	731438	1512	110 - 328	11264		H0589: 2		
HCWTP77	529346	1513	23 - 343	11265		H0305: 2 and H0589: 1.		
HCWTP90	788663	1514	205 - 393	11266	Ser-8 to Arg-13, Lys-19 to Ser-29.	H0589: 2		
HCWTP91	661551	1515	179 - 394	11267		H0589: 2, L0438: 2 and H0265: 1.	7q31	126650, 126650, 164860, 180105, 222800, 246900, 274600, 274600, 602081
HCWTR08	958791	1516	3 - 191	11268		H0305: 5 and H0589: 2.		
HCWTR54	729290	1517	49 - 240	11269	Ser-37 to Gly-44.	AR089: 6, AR061: 2 H0589: 2		
HCWTR77	659506	1518	1 - 198	11270		H0589: 4 and H0305: 1.		
HCWTS15	654317	1519	2 - 223	11271	Leu-1 to His-8.	AR061: 5, AR089: 1 H0305: 1 and H0589: 1.		
HCWTS84	669926	1520	98 - 292	11272		H0305: 1 and H0589: 1.		
HCWTT20	669430	1521	335 - 436	11273		H0589: 2		
HCWTT45	576720	1522	148 - 315	11274	Leu-10 to Tyr-16, Glu-24 to Ala-31.	H0305: 2 and H0589: 2.		
HCWTT47	706527	1523	188 - 355	11275		H0589: 2		
HCWTT63	542409	1524	1 - 210	11276	Lys-7 to Leu-15, Gly-31 to Arg-36,	H0305: 5 and H0589: 2.		

					Glu-60 to Asp-67.			
HCWTT81	712302	1525	110 - 247	11277	Glu-1 to Lys-9, His-18 to Gly-23, Glu-31 to Lys-36.	H0305: 1 and H0589: 1.		
HCWTT89	786693	1526	224 - 331	11278		H0305: 1 and H0589: 1.		
HCWTU12	934902	1527	102 - 308	11279		H0305: 2 and H0589: 2.		
HCWTU83	780917	1528	13 - 183	11280	Arg-8 to Met-13, Glu-35 to Lys-52.	H0589: 2		
HCWTU84	666642	1529	30 - 167	11281	Ser-1 to Ser-6.	H0305: 2 and H0589: 1.		
HCWTV17	725862	1530	232 - 429	11282		H0305: 1 and H0589: 1.		
HCWTV62	742696	1531	135 - 401	11283		AR051: 9, AR054: 8, AR050: 8 H0305: 3 and H0589: 1.		
HCWTV73	574912	1532	187 - 474	11284	Ser-48 to Pro-55, Ala-62 to Asp-72, Lys-84 to Ile-90.	H0305: 2 and H0589: 1.		
HCWTV88	861846	1533	2 - 322	11285	Gly-38 to Leu-43, Pro-56 to Ile-61, Gln-64 to Pro-73, Thr-86 to Arg-93.	H0305: 1 and H0589: 1.		
HCWUA19	668355	1534	167 - 406	11286	Met-41 to Gly-55.	H0589: 2 and H0305: 1.		
HCWUA23	577964	1535	52 - 276	11287	Ala-18 to Gly-28, Trp-45 to Pro-51.	H0589: 2 and H0305: 1.		
HCWUA43	715000	1536	3 - 164	11288	Gly-16 to Ala-22.	H0589: 2		
HCWUA90	706532	1537	4 - 156	11289	Pro-33 to Asn-40.	H0589: 2		
HCWUB03	923556	1538	38 - 304	11290		H0305: 1 and H0589: 1.		
HCWUB08	958770	1539	5 - 130	11291	Val-9 to Gly-21.	H0589: 2		
HCWUB74	765274	1540	131 - 358	11292		H0305: 2 and H0589: 1.		
HCWUB83	853008	1541	44 - 280	11293	Pro-37 to Lys-48, Lys-57 to Ser-62.	H0305: 3, H0254: 1, H0589: 1, H0445: 1 and H0543: 1.		
HCWUC39	572977	1542	1 - 312	11294	Gly-29 to Ile-37.	H0305: 3 and H0589: 1.		
HCWUC64	588122	1543	156 - 314	11295	Gly-27 to Lys-33.	H0589: 1 and H0542: 1.		
HCWUC94	721663	1544	3 - 500	11296	Gln-12 to Pro-29, Gly-35 to Gln-50, Leu-55 to Thr-61, Asn-70 to Cys-89,	H0305: 1 and H0589: 1.		

					Pro-91 to Gln-96.			
HCWUD64	746332	1545	197 - 361	11297		H0305: 1 and H0589: 1.		
HCWUD83	827340	1546	215 - 442	11298	Leu-26 to Ser-31.	H0305: 1 and H0589: 1.		
HCWUD85	529221	1547	1 - 126	11299	Phe-8 to Lys-15.	H0305: 2 and H0589: 1.		
HCWUD93	574856	1548	3 - 314	11300	Ser-6 to Gly-24, Ser-38 to Asn-43, Pro-53 to Gly-58, Gly-60 to Gln-68, Gly-79 to Glu-85, Leu-93 to Lys-101.	H0305: 2 and H0589: 1.		
HCWUF05	849929	1549	47 - 226	11301	Tyr-11 to Thr-20, Tyr-27 to Ala-40.	H0305: 1 and H0589: 1.		
HCWUF30	691734	1550	112 - 405	11302	Leu-9 to Ser-15, Asn-41 to Asn-50, Gln-57 to Glu-62, Arg-82 to Arg-97.	H0305: 1 and H0589: 1.		
HCWUF40	703804	1551	25 - 168	11303		H0589: 2		
HCWUF46	656680	1552	2 - 211	11304	Pro-4 to Glu-12, Ser-61 to Trp-70.	H0589: 2		
HCWUF54	933212	1553	54 - 167	11305	Thr-12 to Asp-19.	H0305: 1 and H0589: 1.		
HCWUF84	686711	1554	88 - 174	11306		H0305: 1 and H0589: 1.		
HCWUG43	697616	1555	16 - 261	11307	Glu-28 to Ser-36.	H0589: 2		
HCWUG59	573548	1556	167 - 409	11308	Ala-31 to Cys-36.	H0305: 2, H0589: 1 and H0581: 1.	1q12-1q21.2	104770, 107670, 110700, 145001, 146760, 146790, 159001, 191315, 600897, 601412, 601652, 601863, 602491
HCWUG93	920882	1557	1 - 243	11309	Thr-43 to Glu-50, Ala-52 to Trp-57, Gly-63 to Asn-71.	H0305: 1 and H0589: 1.		
HCWUH17	662478	1558	87 - 293	11310	Pro-18 to Tyr-23, Ala-57 to Leu-65.	H0305: 5, H0589: 3, L0748: 3, H0402: 1, L0518: 1, L0809: 1 and H0445: 1.		
HCWUH25	677747	1559	130 - 333	11311		H0305: 1 and H0589: 1.		

HCWUH85	752790	1560	181 - 282	11312		H0589: 2		
HCWUI10	964028	1561	2 - 166	11313	Lys-15 to Tyr-28, Gln-47 to Leu-52.	H0589: 2		
HCWUI17	662483	1562	7 - 147	11314	Arg-8 to Leu-13, Gly-16 to Trp-28, Lys-41 to Lys-46.	H0589: 2		
HCWUK13	656679	1563	197 - 391	11315	Ala-39 to Phe-47.	H0305: 1 and H0589: 1.		
HCWUK56	733122	1564	166 - 330	11316		H0589: 2		
HCWUK77	771883	1565	26 - 238	11317		H0305: 1 and H0589: 1.		
HCWUK95	615550	1566	2 - 97	11318		H0305: 2 and H0589: 1.		
HCWUL03	923572	1567	81 - 230	11319	Ala-10 to Lys-16, Arg-35 to Ser-42.	H0589: 2		
HCWUL19	668361	1568	69 - 314	11320	Ile-12 to Asp-18.	H0305: 1 and H0589: 1.		
HCWUL24	968380	1569	80 - 196	11321		H0305: 1 and H0589: 1.		
HCWUL32	523358	1570	58 - 315	11322	Arg-6 to Ala-13.	H0305: 5 and H0589: 1.		
HCWUL36	849901	1571	1 - 357	11323	Gln-27 to Gln-32, Lys-37 to Gly-45.	H0305: 2 and H0589: 1.		
HCWUL47	720024	1572	3 - 482	11324	Thr-18 to Pro-23, Pro-91 to Gly-96.	H0305: 1 and H0589: 1.		
HCWUL69	740373	1573	144 - 257	11325	Asn-9 to Ser-20.	S0114: 1 and H0589: 1.		
HCWUL74	690750	1574	20 - 307	11326	Lys-17 to Gln-23, Glu-77 to Phe-82.	H0305: 1 and H0589: 1.		
HCWUL83	527566	1575	359 - 556	11327	Pro-50 to Asp-57.	H0305: 2 and H0589: 1.		
HCWUN05	928191	1576	27 - 221	11328	Ala-12 to His-20, His-22 to Met-29.	H0402: 1, H0305: 1 and H0589: 1.		
HCWUO10	861840	1577	320 - 493	11329	Arg-7 to Ser-19.	H0589: 2		
HCWUO81	756978	1578	134 - 436	11330	Ser-15 to Arg-20, His-27 to Lys-44, Gly-55 to Ser-61, Pro-69 to Gln-74.	H0589: 2		
HCWUP64	746328	1579	89 - 226	11331	Asn-17 to Phe-25, Ser-41 to Arg-46.	H0305: 1, H0589: 1 and H0543: 1.		
HCWUQ02	968431	1580	283 - 489	11332	Pro-13 to Pro-19.	H0305: 3 and H0589: 1.		
HCWUQ77	719064	1581	2 - 118	11333		H0305: 1, H0589: 1 and S0052: 1.		
HCWUR43	714529	1582	28 - 312	11334	Pro-8 to Cys-21,	H0589: 2 and H0305: 1.		

					Ser-56 to Ile-63, Asp-77 to His-85.			
HCWUR83	958776	1583	392 - 258	11335		H0589: 2 and L0769: 1.		
HCWUR95	711186	1584	12 - 326	11336	Thr-8 to Lys-15, Gly-17 to Lys-26, Thr-84 to Asp-90.	H0305: 1 and H0589: 1.		
HCWUS02	919224	1585	37 - 132	11337	Gln-13 to Ser-25.	H0589: 1 and H0318: 1.		
HCWUS29	690351	1586	50 - 211	11338	Ser-1 to Cys-14.	H0589: 1, S0426: 1 and L0362: 1.		
HCWUS63	542330	1587	2 - 457	11339	Pro-6 to Asn-16, Pro-21 to Tyr-31, Pro-49 to Gln-55, Asp-61 to Gly-66, Gln-78 to Cys-87.	H0305: 2, H0589: 2 and H0635: 1.		
HCWUS72	855815	1588	52 - 330	11340	Arg-5 to Ala-12, Ser-15 to Val-20, Pro-35 to Ala-44, Thr-70 to Lys-79.	H0589: 1 and S0002: 1.		
HCWUT24	676902	1589	242 - 400	11341	Asn-4 to Gln-9.	H0589: 2		
HCWUT46	861836	1590	3 - 239	11342	Thr-9 to Lys-18.	H0305: 4, H0589: 1 and L0601: 1.		
HCWUU04	614859	1591	179 - 361	11343		H0305: 2 and H0589: 1.		
HCWUU07	861959	1592	166 - 510	11344	Ala-58 to Leu-63.	H0305: 1 and H0589: 1.		
HCWUU16	661570	1593	3 - 203	11345		H0305: 1 and H0589: 1.		
HCWUU58	735736	1594	3 - 107	11346		S0218: 1 and H0589: 1.		
HCWUU78	574908	1595	202 - 447	11347	Asp-26 to Asn-32.	H0305: 2 and H0589: 1.		
HCWUV17	662485	1596	150 - 353	11348	Leu-27 to Thr-33.	H0305: 4 and H0589: 1.		
HCWUV24	676909	1597	3 - 167	11349	Lys-1 to Arg-13, Leu-36 to Pro-41.	H0589: 2		
HCWUV28	686171	1598	2 - 193	11350	Gln-59 to Gly-64.	H0589: 1 and S0052: 1.		
HCWUV65	676334	1599	1 - 192	11351	His-15 to Ser-30, Pro-38 to Ser-43, Arg-46 to Asp-52.	H0305: 1 and H0589: 1.		
HCWUV76	615554	1600	97 - 225	11352	Glu-3 to Gln-14.	H0305: 1 and H0589: 1.		
HCWUW01	915860	1601	367 - 507	11353		H0589: 2		
HCWUW04	614844	1602	3 - 281	11354	Arg-42 to Gly-48,	H0305: 4 and H0589: 2.		

					Gln-57 to Ser-64.			
HCWUW55	964086	1603	3 - 143	11355	Lys-1 to Trp-8, Met-22 to Gly-29, Ile-40 to His-46.	H0589: 2		
HCWUW58	694016	1604	1 - 279	11356		H0305: 1 and H0589: 1.		
HCWUW69	882383	1605	230 - 391	11357		H0305: 1 and H0589: 1.		
HCWUW76	769808	1606	2 - 514	11358		H0305: 1 and H0589: 1.		
HCWUW84	782840	1607	92 - 238	11359	Gly-20 to Val-25, Pro-32 to Asp-41.	S0114: 1 and H0589: 1.		
HCWUW90	712303	1608	31 - 183	11360	Ile-1 to His-6.	H0305: 2 and H0589: 1.		
HCWUW95	706528	1609	4 - 204	11361	Met-21 to Gln-27, Arg-38 to Phe-44.	H0589: 2		
HCWUX02	852993	1610	272 - 466	11362	Cys-3 to Thr-9.	H0589: 2		
HCWUX25	614857	1611	269 - 418	11363	Trp-9 to Cys-14.	H0589: 2		
HCWUX78	773336	1612	35 - 214	11364		H0402: 1, H0589: 1, L0748: 1 and L0749: 1.		
HCWUY16	661550	1613	266 - 541	11365	Arg-18 to Lys-24.	H0305: 1 and H0589: 1.		
HCWUY19	922920	1614	482 - 913	11366	Ala-2 to Gly-12.	L0748: 4, H0305: 2 and H0589: 1.		
HCWUY26	681249	1615	66 - 158	11367		H0305: 1 and H0589: 1.		
HCWUY41	711771	1616	3 - 149	11368	Lys-1 to Lys-7.	H0589: 2		
HCWUY69	615630	1617	487 - 32	11369		H0305: 1 and H0589: 1.		
HCWVA18	849894	1618	1 - 312	11370	Ser-19 to Ala-27.	H0305: 3, H0589: 1 and L0769: 1.		
HCWVA25	754314	1619	10 - 159	11371		H0589: 2		
HCWVA44	716347	1620	1 - 135	11372		H0305: 1 and H0589: 1.		
HCWVF94	793533	1621	190 - 303	11373		H0305: 1, H0589: 1 and L0748: 1.		
HCWWH59	770274	1622	139 - 450	11374	Thr-1 to Arg-14, Gln-29 to Ile-37, Thr-43 to Cys-48.	H0305: 1 and H0589: 1.		
HCWWH65	747324	1623	22 - 162	11375	Arg-6 to Ser-11.	H0589: 2 and H0305: 1.		
HCWWH67	772342	1624	158 - 340	11376	Pro-20 to Leu-33, Pro-43 to Ser-48.	H0305: 2 and H0589: 1.		
HCWWH69	861830	1625	2 - 319	11377	Phe-14 to Pro-21.	H0589: 3		

HDCAC05	975255	1626	2 - 178	11378	Pro-6 to Ser-20, Cys-23 to Thr-33, Glu-43 to Gly-49.	H0637: 3		
HDCAD10	963330	1627	141 - 440	11379	Pro-19 to Arg-27, Thr-58 to Trp-72.	H0637: 2		
HDCAG86	852970	1628	2 - 190	11380		H0637: 2		
HDCAP64	922818	1629	173 - 313	11381	Ser-8 to Val-14, His-34 to Phe-41.	H0637: 2		
HDCAV79	881404	1630	1 - 432	11382		H0637: 1 and S0052: 1.		
HDCAY54	959750	1631	1 - 366	11383		H0637: 1 and S0052: 1.		
HDCBO38	961931	1632	56 - 226	11384	Gln-33 to Thr-40.	H0637: 2		
HDDMA83	926991	1633	2 - 571	11385	Glu-1 to Gly-13, Tyr-35 to Arg-42, Glu-95 to His-103, Leu-113 to Gly-119, Ala-139 to Glu-144.	H0641: 1 and H0521: 1.		
HDDNY79	933804	1634	3 - 455	11386	Asn-77 to Ser-82, Pro-112 to Ile-118.	H0637: 1 and H0641: 1.		
HDDOC53	934157	1635	742 - 509	11387	Tyr-16 to Gly-22, Pro-40 to Gln-45, Pro-70 to Gly-78.	S0002: 2, L0770: 2, L0769: 2, L0766: 2, L0518: 2, L0783: 2, H0521: 2, L0777: 2, L0731: 2, H0556: 1, H0650: 1, H0657: 1, H0486: 1, L0055: 1, H0641: 1, S0426: 1, L0662: 1, L0775: 1, L0655: 1, L0665: 1, S0053: 1, H0659: 1, L0754: 1, L0779: 1, L0759: 1 and H0422: 1.		
HDLAC80	799887	1636	109 - 315	11388	Gly-44 to Gly-53, Leu-56 to Lys-61.	H0485: 2		
HDLAD61	775541	1637	1 - 372	11389	Thr-2 to Arg-14.	H0485: 2	15q22.3	151670, 600374, 601780
HDLAH25	796174	1638	118 - 336	11390		H0485: 2 and H0580: 1.		
HDLAK03	923285	1639	2 - 214	11391		H0485: 2		
HDLAN36	923478	1640	1 - 99	11392		H0485: 2		

HDLAO27	787084	1641	66 - 188	11393	Lys-1 to Lys-10, Thr-22 to Glu-28, Arg-35 to Lys-41.	H0485: 1 and H0090: 1.		
HDLAQ50	723854	1642	2 - 88	11394	Pro-1 to Thr-6.	H0485: 2 and L0803: 1.		
HDLAR24	943930	1643	78 - 230	11395		H0543: 2 and H0485: 1.		
HDLAV29	922276	1644	220 - 393	11396	Lys-1 to Lys-13.	S0116: 1, H0485: 1 and H0421: 1.		
HDLBB03	923286	1645	3 - 134	11397	Phe-10 to Arg-21.	H0485: 1 and H0090: 1.		
HDMAQ15	941282	1646	1147 - 152	11398		AR089: 55, AR061: 26 S0142: 2, H0657: 1, H0638: 1, S0278: 1, S0144: 1, S0344: 1, L0777: 1 and L0599: 1.		
HDMBH76	883212	1647	307 - 723	11399	Asp-14 to Gly-24, Gly-31 to Val-36, Gln-58 to Pro-69, Lys-83 to Gly-90, Leu-97 to Thr-103.	H0521: 2, H0638: 1 and L0365: 1.		
HDMBK12	968954	1648	40 - 246	11400		S0114: 1 and H0638: 1.		
HDPAA89	693445	1649	115 - 303	11401	Ser-12 to Gly-18, Ser-25 to Ser-30.	L0748: 3, H0354: 1, S0344: 1 and H0521: 1.		
HDPAB03	924124	1650	76 - 369	11402	Leu-5 to Thr-10, Arg-12 to Glu-19, Pro-41 to Cys-47, Pro-58 to Leu-70.	H0521: 2		
HDPAD22	674560	1651	2 - 205	11403	Arg-1 to Arg-6, Arg-17 to Pro-24.	H0416: 1, L0761: 1, L0766: 1 and H0521: 1.		
HDPAE86	709072	1652	59 - 328	11404	Tyr-41 to Gly-50.	L0748: 2, H0521: 1 and H0543: 1.		
HDPAF70	881626	1653	1 - 465	11405	Glu-37 to Gly-42, Gly-130 to Trp-136, Ser-138 to Gln-145.	H0521: 2		
HDPAG03	771636	1654	55 - 228	11406	Asp-1 to Ile-7, Arg-22 to Ile-32.	H0521: 5 and H0522: 1.		
HDPAG32	947832	1655	119 - 607	11407	Ser-14 to Met-19, Thr-125 to Arg-133.	AR089: 25, AR061: 8 H0521: 2, H0581: 1 and H0423: 1.		

HDPAH10	969041	1656	530 - 144	11408	Pro-30 to Pro-37, Gln-43 to Lys-48, Lys-56 to Asp-74, Gln-76 to Gln-82, Thr-93 to Ala-101, Met-107 to Trp-117.	L0775: 3, L0748: 3, H0521: 2, L0749: 2, H0486: 1, H0069: 1, H0271: 1, H0560: 1, S0426: 1, L0655: 1, S0216: 1, H0423: 1 and H0422: 1.		
HDPAQ24	677179	1657	2 - 439	11409	Pro-5 to Pro-20, Thr-58 to Leu-63, Ala-71 to Arg-79, Ala-99 to Arg-105.	S0052: 1 and H0521: 1.		
HDPAS40	860041	1658	261 - 581	11410		S0053: 1 and H0521: 1.		
HDPAV74	916457	1659	1 - 330	11411	Asp-1 to Ala-6, Phe-34 to Asp-42, Ala-61 to Asp-67.	H0521: 8		
HDPAZ46	719024	1660	252 - 446	11412	Pro-12 to Gly-19, Ser-33 to Ala-38.	H0521: 2		
HDPAZ73	756742	1661	308 - 460	11413		H0486: 1 and H0521: 1.		
HDPBC24	760623	1662	1 - 228	11414		H0521: 2		
HDPBD79	973367	1663	1 - 135	11415	Arg-35 to Lys-45.	H0341: 1 and H0521: 1.		
HDPBJ94	945460	1664	360 - 710	11416	Thr-22 to Tyr-35, Ala-84 to Ser-91.	AR061: 2, AR089: 2 S0116: 1, L0768: 1, L0656: 1, H0521: 1, L0070: 1, L0439: 1 and L0779: 1.		
	972094	9555	783 - 502	19307				
HDPBM64	773091	1665	182 - 352	11417	Phe-15 to Ile-22.	H0341: 1, H0521: 1 and L0595: 1.		
HDPBO71	888109	1666	3 - 203	11418		AR051: 35, AR054: 16, AR050: 13 H0641: 1 and H0521: 1.		
HDPBS54	904762	1667	1145 - 1351	11419	Thr-28 to Pro-36, Ala-43 to Thr-49.	H0521: 9, L0595: 2, H0522: 1, L0593: 1 and L0594: 1.		
	909915	9556	177 - 341	19308				
HDPBW10	964553	1668	1 - 231	11420	Arg-61 to Phe-68.	H0521: 2 and H0522: 1.		
HDPBW26	670345	1669	3 - 137	11421	Val-23 to Pro-45.	H0581: 1 and H0521: 1.		
HDPBX82	779848	1670	301 - 453	11422		H0521: 2 and L0803: 1.		
HDPBY23	858345	1671	27 - 272	11423	Glu-74 to His-82.	L0509: 2, L0005: 1, H0179:		

						1, H0521: 1, L0749: 1 and H0542: 1.		
HDPCC48	709005	1672	56 - 304	11424	Asp-1 to Leu-12, Leu-21 to Gly-28, Trp-35 to Gly-43, Arg-52 to Gly-61.	H0583: 1 and H0521: 1.		
HDPCH65	950716	1673	249 - 371	11425		L0766: 1, H0521: 1 and H0444: 1.		
HDPCK27	683383	1674	151 - 462	11426	Ala-9 to Ala-15, Ser-21 to Arg-35, Thr-60 to Pro-65.	H0521: 3		
HDPCK66	766231	1675	192 - 392	11427	Ser-20 to Trp-30.	H0264: 1 and H0521: 1.		
HDPCM35	973352	1676	1 - 468	11428	Ser-32 to Thr-40, Pro-43 to Trp-48.	H0521: 2		
HDPCN22	927838	1677	2 - 622	11429	Glu-1 to Leu-7, Ser-31 to Glu-54, Lys-67 to Val-73, Lys-88 to Ser-103, Lys-110 to Phe-115, Val-122 to Glu-137, Gly-139 to Lys-154, Glu-167 to Asp-173, Gln-175 to Met-183.	H0264: 1, H0521: 1 and L0748: 1.		
HDPCN94	794275	1678	3 - 767	11430		AR089: 5, AR061: 2 H0521: 2	6q25	180020, 600320, 600883
HDPCR34	852871	1679	339 - 190	11431	Pro-1 to Val-12.	H0521: 2 and H0179: 1.		
HDPCS43	714479	1680	3 - 311	11432		H0179: 1 and H0521: 1.		
HDPCV60	720278	1681	282 - 512	11433		L0754: 6, L0747: 4, H0521: 3, L0748: 2, S0002: 1 and L0749: 1.		
HDPCW90	612234	1682	8 - 439	11434	Ser-70 to Ala-80.	H0542: 3, H0090: 2, H0522: 2, H0556: 1, H0141: 1, S0002: 1 and H0521: 1.		
HDPCY03	924057	1683	24 - 356	11435	His-21 to Arg-28, Pro-64 to Thr-70, Pro-99 to Ala-104.	H0521: 2		

HDPCY43	958157	1684	228 - 383	11436	His-1 to Gln-16, Tyr-27 to Lys-32.	H0370: 1 and H0521: 1.		
HDPCY93	571375	1685	83 - 394	11437		S0134: 2, S0114: 1, H0521: 1 and L0740: 1.		
HDPDI78	773556	1686	2 - 346	11438		H0521: 2		
HDPDJ24	677166	1687	173 - 361	11439	Gln-1 to Glu-10, Asp-15 to Ala-24.	H0521: 2 and L0748: 1.		
HDPDJ90	735027	1688	227 - 454	11440	Ser-6 to Cys-21, Ser-30 to Ser-44.	H0264: 1 and H0521: 1.		
HDPDL62	691647	1689	239 - 415	11441	Asp-1 to Arg-7.	H0521: 2, H0580: 1 and L0518: 1.		
HDPDL79	774943	1690	269 - 583	11442	Lys-7 to Ser-12, Pro-24 to Thr-30.	H0521: 2		
HDPDN08	959332	1691	283 - 939	11443	Ile-30 to Pro-35, Thr-68 to Asn-77, Pro-87 to Gln-93, Gly-142 to Leu-149.	H0521: 1 and H0542: 1.		
HDPDO46	719010	1692	166 - 417	11444	Pro-11 to Arg-18.	H0521: 1 and H0522: 1.		
HDPFC15	745045	1693	15 - 209	11445	Ser-2 to Arg-12.	H0521: 2		
HDPFF07	974494	1694	178 - 513	11446	Ala-1 to Glu-21, Gly-27 to Gly-32, Gln-34 to Gly-42, Ala-55 to Ala-63, Asp-74 to Gly-81, Glu-98 to Gly-105.	H0521: 4		
HDPFJ21	852824	1695	3 - 140	11447		H0318: 1 and H0521: 1.		
HDPFQ93	772456	1696	2 - 343	11448	Glu-1 to Glu-9, Leu-30 to Gln-35, Thr-76 to Gln-81, Gly-85 to Glu-91.	H0271: 1 and H0521: 1.		
HDPFV55	575202	1697	472 - 230	11449	Ser-1 to Ser-14.	H0075: 1, L0766: 1, H0521: 1 and L0748: 1.		
HDPFW80	734937	1698	224 - 508	11450	Met-14 to Leu-28, Pro-30 to Leu-38, Ser-62 to Ala-67.	S0053: 1 and H0521: 1.		
HDPFY90	788870	1699	3 - 173	11451		H0521: 2		

HDPFZ58	735975	1700	1 - 234	11452	Pro-7 to Trp-14, Gly-53 to Glu-60, Met-71 to Lys-78.	H0583: 1, H0521: 1 and H0543: 1.			
HDPGB73	574603	1701	129 - 257	11453	Asp-1 to Tyr-20.	H0581: 1, H0271: 1 and H0521: 1.			
HDPGG28	625678	1702	1 - 351	11454	Thr-37 to Arg-43, Ala-49 to Gly-54, Pro-59 to Gly-66, Glu-83 to Arg-89.	H0521: 3			
HDPGH27	937144	1703	196 - 312	11455		H0486: 1 and H0521: 1.	11p15	108985, 186921, 602092	
HDPGI14	415961	1704	283 - 444	11456		H0521: 2			
HDPGI21	760926	1705	38 - 232	11457	Ala-17 to Arg-23.	H0521: 2			
HDPGJ95	919792	1706	243 - 455	11458		H0521: 2			
HDPGL65	666830	1707	186 - 67	11459		S0114: 1 and H0521: 1.			
HDPGM85	783563	1708	271 - 429	11460	Lys-37 to Trp-46.	H0521: 2			
HDPGO30	780359	1709	1 - 420	11461	Pro-4 to Ala-10, Ala-12 to Trp-22, Ser-24 to Lys-33, His-42 to Phe-49, Ile-56 to Gln-70, Glu-122 to Glu-140.	H0521: 2			
HDPGO52	852800	1710	3 - 188	11462	Glu-1 to Arg-10, Gly-12 to Glu-22, His-25 to Gln-33.	S0002: 1 and H0521: 1.			
HDPGP54	464312	1711	215 - 466	11463	Ala-1 to Gly-14.	H0341: 1 and H0521: 1.			
HDPGP75	872249	1712	219 - 422	11464	Gly-18 to Pro-26.	H0521: 2			
HDPGT43	495783	1713	515 - 219	11465		H0063: 1 and H0521: 1.			
	852795	9557	408 - 617	19309					
	852806	9558	250 - 369	19310					
HDPGU50	720595	1714	231 - 344	11466		H0521: 3 and S0053: 1.			
HDPGX44	683277	1715	260 - 406	11467	Thr-28 to Arg-39.	H0521: 1 and H0522: 1.			
HDPHB75	915912	1716	27 - 140	11468		H0521: 4, H0522: 1, H0542: 1 and H0543: 1.			
HDPHF59	677172	1717	97 - 225	11469	Ser-30 to Arg-38.	H0537: 1 and H0521: 1.			
HDPHG23	416041	1718	108 - 326	11470	Thr-1 to Asp-7.	H0521: 2			

HDPHG42	732133	1719	1 - 408	11471		H0521: 2, H0583: 1, H0341: 1, L0142: 1, H0445: 1 and H0543: 1.		
HDPHG89	733198	1720	410 - 601	11472		H0521: 1 and H0444: 1.		
HDPHH51	921093	1721	3 - 332	11473	Arg-1 to Leu-6, Thr-30 to Asn-36, Arg-48 to Ile-53, Asn-65 to Ser-85, Glu-92 to Asn-109.	S0298: 1 and H0521: 1.		
HDPHI02	919825	1722	275 - 460	11474	Ser-1 to Asp-6.	H0305: 1 and H0521: 1.		
HDPHI71	760325	1723	1 - 210	11475	Ala-1 to Ser-10, Pro-22 to Ser-34, Gln-47 to Asn-55.	H0521: 1 and H0522: 1.		
HDPHJ36	706624	1724	178 - 309	11476	Ser-30 to Arg-36.	H0521: 2		
HDPHK96	921957	1725	1 - 516	11477	Pro-1 to His-6, Ser-13 to Cys-22, Lys-49 to Glu-54, Arg-60 to Trp-72, Arg-90 to Arg-99, Gln-117 to His-127.	H0402: 2, S0052: 2, S0428: 2, H0271: 1, H0521: 1 and H0445: 1.		
HDPIA15	772020	1726	2 - 592	11478	Gln-7 to Lys-13, Tyr-17 to Glu-26, Asp-97 to Ser-104, Asn-135 to Met-140.	H0521: 1 and H0522: 1.		
HDPIC37	954869	1727	377 - 694	11479	Lys-1 to Thr-14, Glu-28 to Val-34, Lys-56 to Ala-66, Glu-72 to Lys-79.	H0521: 2		
HDPID10	928163	1728	2 - 559	11480	Glu-16 to Gln-25, His-36 to His-45, His-48 to His-57, His-63 to Gln-70, Ala-76 to His-93, Gln-97 to Gly-107, Glu-121 to Gly-137.	H0521: 2		
HDPID37	868169	1729	82 - 276	11481	Pro-42 to Gln-65.	H0341: 3, H0656: 1, H0580:		

						1, S0344: 1, S0002: 1 and H0521: 1.		
HDPIE42	713081	1730	199 - 399	11482	Arg-7 to Glu-19.	H0250: 1 and H0521: 1.		
HDPIF86	591540	1731	2 - 205	11483	Lys-1 to Gly-10, Arg-17 to Arg-33, Ala-39 to Pro-50.	H0521: 4, L0740: 1 and L0593: 1.	14q11.2	182600, 186880, 190195, 190195, 222700, 600243, 602279, 602279
HDPIH48	677664	1732	7 - 405	11484	Thr-16 to Arg-22, Gly-28 to Gly-36, Gln-43 to His-60.	H0580: 1, S0278: 1 and H0521: 1.		
HDPIP26	681519	1733	268 - 528	11485		H0580: 1, H0521: 1 and L0748: 1.		
HDPIQ55	961163	1734	72 - 278	11486	Pro-16 to Tyr-21, Ser-34 to Trp-40, Ser-57 to Thr-67.	L0748: 3, H0271: 2 and H0521: 1.	9q12	602014
HDPIQ65	747791	1735	287 - 424	11487		H0521: 2		
HDPIT53	926498	1736	33 - 383	11488	Pro-16 to Ser-21.	H0581: 1 and H0521: 1.		
HDPIT61	741724	1737	1 - 420	11489	Glu-1 to Arg-33, Gly-45 to Pro-52, Pro-62 to Ser-71, Pro-83 to Trp-95.	AR089: 1, AR061: 0 H0521: 1 and H0522: 1.		
HDPJA04	628745	1738	37 - 261	11490	Leu-1 to Trp-8, Ala-36 to Gly-41.	H0521: 2		
HDPJA26	767110	1739	3 - 428	11491	Gln-1 to Asp-7, Leu-41 to Glu-47, Lys-55 to Glu-62, Ser-113 to Trp-119.	H0521: 2		
HDPJB08	921453	1740	3 - 194	11492	Gln-1 to Tyr-7.	H0265: 1 and H0521: 1.		
HDPJI05	911170	1741	1 - 333	11493		AR050: 11, AR054: 1, AR051: 0 S0002: 2, H0185: 1, H0521: 1, H0576: 1 and L0779: 1.		
	928715	9559	1178 - 759	19311				
HDPJK06	852781	1742	282 - 452	11494		H0063: 1 and H0521: 1.		
HDPJK73	765446	1743	265 - 417	11495		H0521: 2		
HDPJN68	752907	1744	198 - 317	11496	Lys-4 to Asn-9,	H0083: 1 and H0521: 1.		

					Arg-30 to His-35.			
HDPJO40	711003	1745	2 - 163	11497	Gly-14 to Ser-20, Lys-35 to Lys-47.	H0589: 1 and H0521: 1.		
HDPJP32	918630	1746	1 - 153	11498		H0580: 1 and H0521: 1.		
HDPJP79	538038	1747	264 - 473	11499	Gln-1 to Thr-6.	H0421: 1 and H0521: 1.		
	774743	9560	281 - 111	19312	His-3 to Asp-11, Leu-13 to Thr-27, Ser-47 to Arg-54.			
HDPJR11	965011	1748	1 - 288	11500		H0521: 1 and H0522: 1.		
HDPJU86	785391	1749	503 - 279	11501		L0439: 6, L0752: 4, L0794: 3, L0805: 2, L0776: 2, L0438: 2, L0756: 2, H0486: 1, L0435: 1, H0641: 1, L0803: 1, L0666: 1, H0521: 1 and L0755: 1.		
HDPKD52	959653	1750	163 - 447	11502		S0114: 1, H0656: 1, S0002: 1, S0426: 1, S0052: 1, S0053: 1 and H0521: 1.		
HDPKD82	778970	1751	10 - 177	11503	Ala-46 to His-51.	H0521: 1 and H0445: 1.		
HDPKI40	710991	1752	1 - 369	11504	Pro-65 to Gly-75, Pro-80 to Gly-91, Lys-98 to Gly-111.	H0521: 1 and H0542: 1.		
HDPKK25	677921	1753	1 - 126	11505	Cys-33 to Pro-42.	S0134: 1 and H0521: 1.		
HDPLB25	965139	1754	19 - 183	11506	Gln-21 to Gln-39.	H0521: 2 and L0748: 2.		
HDPLC45	909091	1755	235 - 828	11507		AR089: 1, AR061: 0 L0439: 3, L0438: 2, H0521: 2, L0773: 1, L0662: 1, L0766: 1, H0542: 1 and H0543: 1.		
HDPLC60	740144	1756	88 - 396	11508	Gly-23 to Gly-37, Ala-39 to Arg-48.	H0521: 2		
HDPLD11	966610	1757	77 - 331	11509	Ser-34 to Asp-41.	H0521: 2		
HDPLD29	690409	1758	310 - 432	11510		H0521: 2		
HDPLD57	734528	1759	203 - 394	11511		H0521: 2		
HDPLD89	786704	1760	319 - 435	11512		H0521: 2		
HDPLE38	706639	1761	185 - 328	11513	Gly-16 to Trp-21,	H0521: 2		

					Val-27 to Trp-32.			
HDPLE63	703477	1762	1 - 447	11514	Tyr-3 to Arg-10, Arg-21 to Lys-32, Gln-43 to Glu-51, Ile-72 to Thr-81, Lys-97 to Asp-102.	H0521: 2 and H0486: 1.		
HDPLE75	852685	1763	51 - 236	11515		H0521: 2		
HDPLE88	625293	1764	80 - 202	11516	Glu-18 to Thr-24.	H0521: 2		
HDPLE96	915966	1765	225 - 449	11517		H0521: 2		
HDPLF86	785316	1766	62 - 631	11518	Lys-26 to Ser-32, Met-110 to Glu-115.	H0521: 2 and L0591: 1.		
HDPLG10	964213	1767	376 - 203	11519	Phe-36 to Lys-48.	H0521: 2, H0402: 1 and L0741: 1.		
HDPLJ28	840111	1768	1 - 96	11520		H0521: 2		
HDPLK49	835603	1769	1 - 213	11521		H0521: 2		
HDPLN06	935010	1770	118 - 408	11522	Ile-1 to Ala-6, Gly-36 to Leu-41.	H0521: 2		
HDPLN76	921700	1771	249 - 404	11523		H0306: 1 and H0521: 1.		
HDPLO50	724098	1772	424 - 621	11524		T0041: 1 and H0521: 1.		
HDPLT29	958196	1773	1 - 216	11525	Pro-1 to Ala-12, Arg-19 to Gly-25.	H0305: 1, S0344: 1 and H0521: 1.		
HDPLV74	765334	1774	270 - 479	11526	Met-1 to Pro-11.	H0556: 1 and H0521: 1.		
HDPMA48	582015	1775	2 - 706	11527	Asp-1 to Lys-17, Ala-53 to Lys-61, Asp-66 to Arg-73.	AR089: 19, AR061: 15 H0581: 1, H0521: 1 and H0522: 1.		
HDPMC49	852767	1776	813 - 1061	11528		H0265: 1 and H0522: 1.		
HDPMF53	733466	1777	187 - 327	11529	Thr-18 to Ala-24, Ser-27 to Trp-32.	H0477: 1 and H0522: 1.		
HDPMH83	661316	1778	1 - 579	11530	Arg-19 to Asp-27, Ser-40 to His-45, Gln-77 to Leu-83.	H0581: 1 and H0522: 1.	21q22.3	120220, 120240, 123580, 151385, 171860, 190685, 236100, 236200, 240300, 267750, 600065, 601072, 601145
HDPMJ93	852763	1779	220 - 510	11531	Gln-11 to His-20,	H0264: 1 and H0522: 1.		

					Ser-85 to Ser-90.			
HDPMO62	912722	1780	1 - 582	11532	Ala-14 to Gly-20, Gly-34 to Pro-44, His-128 to Ser-134.	AR089: 1 S0002: 2 and H0522: 1.		
HDPMP25	678068	1781	347 - 601	11533	Arg-1 to Pro-6, Gln-23 to Asn-35, Thr-49 to Lys-60.	S0116: 1 and H0522: 1.		
HDPMQ34	956248	1782	228 - 374	11534	Thr-44 to Ile-49.	H0522: 2		
HDPMS42	713759	1783	96 - 263	11535		L0005: 2, L0740: 2, L0157: 1, L0766: 1, L0809: 1, L0787: 1, S0052: 1, H0522: 1, L0741: 1 and L0749: 1.		
HDPMV53	697470	1784	97 - 270	11536	Ser-50 to Asn-58.	S0212: 1, L0438: 1 and H0522: 1.		
HDPMW22	665153	1785	124 - 366	11537		H0522: 2, H0581: 1, H0063: 1 and H0521: 1.		
HDPMZ01	916447	1786	1 - 195	11538	Thr-19 to Arg-26.	L0777: 3 and H0522: 2.		
HDPNA03	924082	1787	7 - 78	11539		H0522: 2		
HDPNC96	934520	1788	3 - 734	11540	Val-2 to Gly-8, Asp-20 to Gln-26.	AR089: 1, AR061: 1 H0522: 2 and L0766: 1.		
HDPND35	973108	1789	80 - 466	11541	Asn-1 to Asp-6, Ala-20 to Ala-27, Ser-34 to Ile-47, Pro-60 to Ser-65, Arg-82 to Trp-87.	H0521: 2 and H0522: 1.		
HDPNE60	974827	1790	37 - 939	11542	Gly-2 to Lys-8.	H0556: 3 and H0522: 1.	5q32-q33	109690, 109690, 131400, 138491, 138491, 138491, 154500, 180071, 181460, 222600, 222600, 222600, 234000, 272750, 600807, 601411, 601596, 602089
HDPNI03	924081	1791	111 - 413	11543	Ala-10 to Ala-23, Thr-49 to Trp-64,	L0471: 2 and H0522: 2.		

					Gln-80 to Arg-87.				
HDPNJ14	767447	1792	3 - 149	11544	Thr-15 to Ala-22, Glu-43 to Ser-48.	H0264: 1 and H0522: 1.			
HDPOC44	707241	1793	119 - 481	11545	Asp-49 to Lys-58, Gln-71 to Ser-80, Ser-112 to Arg-117.	H0486: 1, H0090: 1 and H0522: 1.			
HDPOD96	939770	1794	14 - 277	11546	Arg-6 to Pro-14, Arg-22 to Glu-29, Leu-59 to Arg-64.	H0521: 2 and H0522: 1.			
HDPOF25	852745	1795	215 - 475	11547	Lys-1 to Gln-7.	H0589: 2 and H0522: 1.			
HDPOI52	927699	1796	114 - 422	11548	Ala-73 to Ala-89.	S0114: 1, H0179: 1, L0761: 1 and H0522: 1.			
HDPOJ93	792193	1797	140 - 343	11549		H0179: 2 and H0522: 1.			
HDPOK47	973097	1798	153 - 311	11550	Thr-3 to Leu-10, Pro-19 to Thr-29.	H0087: 1 and H0522: 1.			
HDPOL60	767953	1799	2 - 148	11551	Gln-31 to Arg-38.	H0583: 1 and H0522: 1.			
HDPOL66	681391	1800	280 - 438	11552		H0580: 1 and H0522: 1.			
HDPOX65	674963	1801	107 - 226	11553		H0264: 1 and H0522: 1.			
HDPOY33	702285	1802	31 - 207	11554	Asn-13 to Met-21, Asn-23 to Gln-37, Gly-53 to Ser-59.	S0002: 1 and H0522: 1.			
HDPOZ51	926977	1803	3 - 416	11555	Gly-10 to Leu-17.	H0486: 1 and H0522: 1.			
HDPPA66	870840	1804	231 - 497	11556		H0635: 1, S0002: 1, H0522: 1 and L0748: 1.			
HDPPC83	683656	1805	3 - 263	11557		S0114: 1 and H0522: 1.			
HDPPD59	708334	1806	3 - 236	11558		H0522: 1 and H0436: 1.			
HDPPG35	579315	1807	2 - 550	11559	Gly-4 to Glu-12.	H0083: 1 and H0522: 1.			
HDPPG86	923846	1808	175 - 342	11560		H0522: 2			
HDPPK33	666510	1809	259 - 453	11561	Thr-15 to Gly-27.	L0748: 3, L0777: 2, H0421: 1, L0762: 1, L0805: 1, L0783: 1, L0788: 1, L0532: 1, H0521: 1, H0522: 1 and L0756: 1.			
HDPPL30	692095	1810	74 - 241	11562	Arg-8 to His-27, Thr-38 to Thr-48.	S0002: 1 and H0522: 1.			
HDPPM09	625281	1811	2 - 529	11563	Val-1 to Pro-10,	H0521: 2 and H0522: 1.	lp32	120950, 120960,	

					Leu-12 to Arg-39, Cys-44 to Gly-57, Lys-94 to Gly-99, Glu-114 to Ser-134, Pro-145 to Phe-165.			138140, 178300, 187040, 600101, 600650, 600650, 600722, 600722
HDPPN33	958993	1812	3 - 95	11564	Lys-1 to Lys-8, Arg-16 to Lys-26.	H0522: 2		
HDPPN59	909867	1813	174 - 473	11565	Arg-9 to Ala-15, Tyr-37 to Lys-42, Glu-48 to Gly-54.	AR061: 1, AR089: 0 H0522: 2 and L0758: 1.		
HDPPO88	963382	1814	334 - 555	11566	Pro-59 to Asn-65.	H0271: 1, S0426: 1 and H0522: 1.		
HDPPP24	812091	1815	1 - 474	11567	Pro-1 to Arg-17, Asn-60 to Phe-69.	H0580: 1 and H0522: 1.		
HDPPQ39	712993	1816	302 - 460	11568	Leu-14 to Gly-20.	S0114: 1, H0305: 1, H0522: 1 and H0423: 1.		
HDPPU30	671973	1817	2 - 310	11569	Ser-40 to Arg-46, Thr-51 to Asp-60.	H0179: 1 and H0522: 1.		
HDPPU44	951276	1818	176 - 376	11570		AR089: 3, AR061: 1 L0755: 4, H0521: 1 and H0522: 1.		
HDPPW36	785239	1819	156 - 308	11571	Asn-1 to Phe-9, Pro-20 to Ser-31, Asn-40 to Lys-45.	H0583: 1, H0522: 1 and L0740: 1.		
HDPPX43	674958	1820	1 - 303	11572	Ser-19 to Ser-25.	H0264: 1, H0521: 1 and H0522: 1.		
HDPQA91	973075	1821	131 - 331	11573	Lys-1 to Gln-10, Asn-56 to Ser-67.	H0522: 2 and H0521: 1.		
HDPQC21	786516	1822	66 - 281	11574		H0522: 3		
HDPQC83	830539	1823	125 - 295	11575	Gly-28 to Asn-38.	H0522: 2 and H0421: 1.		
HDPQJ45	928430	1824	1 - 273	11576	Ile-43 to Asp-51, Arg-53 to His-61, Pro-63 to Lys-69.	H0521: 1 and H0522: 1.		
HDPQL15	789876	1825	26 - 364	11577		H0522: 2		
HDPQL64	746043	1826	131 - 301	11578	Phe-1 to Trp-8, Thr-17 to Tyr-27.	H0264: 1 and H0522: 1.		

HDPQL72	760934	1827	1 - 282	11579	Arg-8 to Arg-13, Leu-36 to Asp-73.	H0522: 2		
HDPQN03	923168	1828	270 - 449	11580		H0650: 1, H0580: 1 and H0522: 1.		
HDPQO40	949723	1829	1740 - 1048	11581	Arg-5 to Pro-11, Phe-32 to Pro-37, Pro-52 to Arg-59, Ser-75 to Pro-80, Pro-225 to Ser-231.	AR061: 2, AR089: 2 H0486: 3, L0766: 3, L0777: 3, S0002: 2, S0426: 2, L0779: 2, L0759: 2, H0477: 1, L0805: 1, H0522: 1, H0478: 1, L0743: 1, H0445: 1 and H0543: 1.		
HDPQQ77	739816	1830	185 - 352	11582	Tyr-1 to Arg-7.	H0522: 2		
HDPQR31	741278	1831	3 - 434	11583	Leu-28 to Glu-33, Arg-48 to Gly-53, Pro-60 to Glu-66, Leu-70 to Arg-79, Gly-89 to Gly-96.	H0581: 1, H0522: 1 and H0543: 1.		
HDPQU30	768771	1832	250 - 477	11584		H0522: 2		
HDPQV63	744471	1833	111 - 320	11585		L0439: 3, H0585: 1 and H0522: 1.		
HDPRE08	958933	1834	205 - 351	11586		H0220: 1, H0521: 1, L0754: 1 and L0746: 1.		
HDPRE10	961306	1835	123 - 308	11587	Lys-36 to Lys-43.	H0521: 2		
HDPRG09	828572	1836	20 - 241	11588	Ser-7 to Ser-23, Asp-56 to Ser-74.	H0090: 1 and H0521: 1.		
HDPRH02	919404	1837	68 - 790	11589		L0766: 4, L0769: 3, L0774: 3, L0755: 3, L0761: 2, H0521: 2, L0771: 1 and L0777: 1.		
HDPRH59	739077	1838	319 - 450	11590		H0521: 2 and L0766: 1.		
HDPRI39	773790	1839	1 - 192	11591	Gly-14 to Gly-19, Gln-30 to Glu-41.	H0179: 1 and H0521: 1.		
HDPRL58	724652	1840	73 - 252	11592	Pro-26 to Thr-38.	S0114: 1 and H0521: 1.		
HDPRN15	577985	1841	151 - 336	11593	Pro-9 to Lys-16.	H0457: 1 and H0521: 1.		
HDPRP29	690399	1842	115 - 420	11594	Leu-64 to Arg-69.	H0635: 3, H0583: 1, H0521: 1 and L0366: 1.		

HDPRP83	773394	1843	178 - 465	11595		H0521: 2		
HDPRS79	774077	1844	1 - 249	11596	Glu-6 to Phe-20, Thr-60 to Val-65.	S0428: 1 and H0521: 1.		
HDPRY05	958822	1845	101 - 298	11597	Val-32 to Arg-37.	H0521: 2		
HDPRY33	893790	1846	2 - 247	11598	Tyr-39 to Pro-44, Ile-56 to Pro-63.	L0748: 2, S0002: 1, L0659: 1 and H0521: 1.		
HDPRY70	677782	1847	1 - 228	11599	Arg-1 to Gly-7, Ala-9 to Ala-15, Ala-53 to Gly-60.	L0794: 6, L0800: 5, L0771: 3, L0803: 3, L0761: 2, L0764: 2, L0804: 2, H0521: 2, L0750: 2, L0777: 2, H0581: 1, L0769: 1, L0772: 1 and L0757: 1.		
HDPSC55	731496	1848	2 - 238	11600	Arg-11 to Leu-16, Ser-62 to Pro-67.	H0264: 1 and H0521: 1.	11q22	105580, 133780, 602574, 602574
HDPSG10	961323	1849	3 - 206	11601	Arg-1 to Trp-6, Val-33 to Asp-39.	T0041: 1 and H0521: 1.		
HDPSJ84	782867	1850	1 - 423	11602	Cys-13 to Pro-20, Gly-27 to Ala-35, Gly-78 to Ala-83.	H0087: 1 and H0521: 1.		
HDPSM07	620372	1851	289 - 471	11603	Asn-1 to Asn-6.	H0457: 7, L0662: 2, L0766: 1, L0804: 1, L0806: 1, L0655: 1, L0789: 1, S0216: 1, H0521: 1, L0756: 1 and L0755: 1.		
HDPSO36	959141	1852	1 - 243	11604	Glu-4 to Phe-18, Thr-58 to Val-63.	H0521: 3		
HDPSS57	734507	1853	85 - 315	11605	Gln-34 to Gly-41, Ser-61 to Trp-66, Met-71 to Met-77.	S0116: 1 and H0521: 1.		
HDPSU54	670838	1854	25 - 360	11606		H0521: 2, H0436: 1 and H0543: 1.	14q32.3	
HDPSV04	614924	1855	224 - 424	11607	Trp-27 to Tyr-32.	H0521: 4		
HDPSV29	690415	1856	2 - 358	11608	Ala-1 to Gly-9, Ala-12 to Ser-49, His-59 to Thr-65.	H0521: 4		
HDPSY30	691778	1857	172 - 2	11609	Lys-7 to Ser-21.	H0521: 2		

HDPTC31	878639	1858	80 - 367	11610		H0521: 2		
HDPTJ25	706448	1859	160 - 324	11611	Gln-8 to His-15.	H0402: 1 and H0521: 1.		
HDPTJ79	669209	1860	592 - 837	11612	Lys-17 to Gly-27.	L0766: 5, L0777: 2, H0255: 1, H0402: 1, S0344: 1 and H0521: 1.		
HDPTO71	760142	1861	384 - 647	11613		H0551: 1 and H0521: 1.		
HDPTP07	741632	1862	1 - 276	11614		H0521: 2		
HDPTS95	906940	1863	111 - 341	11615	Glu-7 to Ile-14, Ala-38 to Leu-44.	H0521: 2 and H0581: 1.		
HDPTT20	669029	1864	37 - 234	11616		H0521: 2		
HDPTU30	691181	1865	1 - 183	11617		H0521: 2		
HDPTU66	697690	1866	40 - 387	11618	Thr-83 to Gly-88.	H0521: 2		
HDPTU95	876582	1867	147 - 1	11619	Lys-36 to Ser-49.	H0521: 2		
HDPTW90	722699	1868	1 - 282	11620	Gly-13 to Gly-18, Arg-26 to Gly-33, Gly-40 to Gly-49.	AR089: 0, AR061: 0 H0521: 2 and H0641: 1.		
HDPUD28	852687	1869	31 - 261	11621	Thr-22 to Gly-29, Thr-34 to Asn-39.	H0521: 1 and H0445: 1.		
HDPUF77	769852	1870	39 - 197	11622		H0521: 2		
HDPUF94	861520	1871	245 - 400	11623	Tyr-25 to Thr-41.	H0521: 2		
HDPUG06	968313	1872	312 - 437	11624		H0402: 1, H0305: 1 and H0521: 1.		
HDPUQ02	973235	1873	175 - 588	11625	Gly-1 to Pro-15.	AR054: 2, AR051: 1, AR050: 1 H0521: 5		
HDPUS62	604483	1874	3 - 221	11626	Gln-27 to Thr-32, Arg-39 to Ser-45, Lys-53 to Ser-60, Lys-67 to Gln-73.	S0278: 1 and H0521: 1.		
HDPVD09	774165	1875	365 - 544	11627		S0428: 1 and H0521: 1.		
HDPVE36	706712	1876	2 - 385	11628	Ser-7 to Asn-17.	H0486: 1, L0766: 1 and H0521: 1.		
HDPVG11	966556	1877	185 - 922	11629		S0002: 1 and H0521: 1.		
HDPVH13	656711	1878	94 - 303	11630	Val-32 to Arg-45.	L0455: 1, H0521: 1 and H0522: 1.		
HDPVL94	927023	1879	147 - 365	11631		S0428: 1 and H0521: 1.		

HDPVQ96	796133	1880	161 - 274	11632		H0521: 1 and H0445: 1.		
HDPVR71	740340	1881	170 - 307	11633		H0486: 1, H0521: 1 and L0594: 1.		
HDPVU35	852616	1882	164 - 310	11634	Pro-20 to Lys-26.	S0428: 2 and H0521: 2.		
HDPVV46	718160	1883	3 - 359	11635	Arg-1 to Val-9, Pro-19 to Pro-25, Lys-28 to Val-33, Pro-54 to Ala-63, Ser-82 to Glu-93, Pro-100 to His-107, Pro-113 to Gln-119.	H0416: 1 and H0521: 1.		
HDPVV95	582503	1884	182 - 364	11636	Ser-8 to Phe-13, Lys-21 to Arg-32.	S0002: 1 and H0521: 1.		
HDPVW13	656715	1885	198 - 521	11637		H0090: 1 and H0521: 1.		
HDPVY53	727593	1886	1 - 330	11638	Pro-13 to His-21, Asn-34 to Asp-42, Trp-78 to Lys-89.	H0521: 2		
HDPVY58	710458	1887	3 - 152	11639	Leu-6 to Phe-13, Arg-23 to Leu-29, Ser-32 to His-38.	H0521: 3		
HDPWA55	965474	1888	169 - 354	11640	Glu-22 to Ser-28, Asn-45 to Ser-51.	H0591: 1 and H0521: 1.		
HDPWD25	677764	1889	75 - 275	11641	Glu-35 to Ser-40, Gly-55 to Pro-67.	H0521: 2		
HDPWE80	909916	1890	94 - 765	11642	Asp-8 to Cys-21, Val-25 to Asn-33, Thr-47 to Pro-55, Ala-62 to Thr-68, Val-79 to Lys-88, Asn-91 to Asn-104, Tyr-114 to Gly-120, Thr-187 to Glu-192, Ile-217 to Thr-224.	H0521: 9, L0595: 2, L0593: 1 and L0594: 1.		
HDPWE88	857980	1891	170 - 439	11643	Gln-1 to Met-9, Arg-39 to Lys-45, Lys-66 to Leu-75.	H0521: 2	8q22.2	148900, 216550

HDPWH10	967692	1892	2 - 175	11644	Thr-3 to Ser-11.	H0650: 1, H0318: 1 and H0521: 1.		
HDPWN34	703814	1893	294 - 446	11645	Ser-1 to Met-6, Lys-37 to Cys-43.	S0134: 1, L2250: 1, L0766: 1, H0521: 1 and H0543: 1.	5p13	108962, 120940, 217050, 217050, 217070, 245050, 600837, 600946, 600946, 600946
HDPWY46	915964	1894	140 - 475	11646		H0521: 2		
HDPXE68	852626	1895	134 - 421	11647	Ser-43 to Pro-48.	H0521: 2	19q13.4	134790, 191044, 600040, 600138
HDPXF52	726450	1896	34 - 156	11648	Ser-15 to Leu-21.	H0521: 2, L0772: 1, L0764: 1, L0794: 1 and L0805: 1.		
HDPXL59	615543	1897	46 - 402	11649	Arg-45 to Met-52, Glu-75 to Arg-87, Ala-96 to Ser-102, Arg-110 to Ser-116.	L0756: 2, L0731: 2, H0250: 1 and H0521: 1.		
HDPXL68	707532	1898	317 - 619	11650		H0457: 1, H0521: 1 and H0522: 1.		
HDPXP04	614895	1899	501 - 752	11651	Pro-6 to Leu-12, His-21 to Lys-26.	H0581: 1, H0457: 1, H0521: 1 and L0581: 1.		
HDPXU29	852638	1900	359 - 517	11652		H0521: 2		
HDPXW75	951320	1901	284 - 784	11653	Lys-4 to Ser-21.	AR089: 2, AR061: 1 S0278: 1, H0521: 1 and L0740: 1.		
HDPXX01	915914	1902	3 - 197	11654	Arg-19 to Ser-25, His-37 to Ala-42.	H0521: 2		
HDPXZ92	743429	1903	3 - 209	11655		H0556: 1 and H0521: 1.		
HDPYC51	919000	1904	241 - 2	11656		H0521: 2		
HDPYD58	726288	1905	4 - 267	11657	Ser-38 to Gly-43, Ser-66 to Ser-72.	H0521: 1 and H0543: 1.		
HDPYD92	791222	1906	2 - 214	11658	Val-3 to Glu-8, Gly-21 to His-39, Glu-47 to Ile-64.	H0521: 2		
HDPYE96	717598	1907	54 - 497	11659	Thr-16 to Tyr-22, Lys-49 to Ala-58, Thr-67 to Ala-73,	S0212: 1 and H0521: 1.		

					Ala-105 to Arg-111.			
HDPYF79	774272	1908	510 - 346	11660		S0002: 1 and H0521: 1.		
HDPYH79	886845	1909	3 - 107	11661	Ala-2 to Asp-18.	S0278: 1, H0416: 1, S0428: 1, H0521: 1 and L0749: 1.		
HDQDU40	791340	1910	186 - 458	11662	Arg-1 to Ile-7, Gln-9 to Glu-16.	H0521: 2		
HDQEA94	793378	1911	370 - 606	11663		H0521: 2 and H0264: 1.		
HDQEC77	771351	1912	2 - 550	11664	Arg-1 to Ala-8, Gln-11 to Ser-18, Lys-27 to Thr-34, Ser-40 to Pro-49, Ser-62 to Asn-67, Ser-70 to Phe-84, Arg-86 to Gly-107.	H0521: 2		
HDQEC82	779149	1913	316 - 483	11665	His-38 to Asn-44.	H0521: 2		
HDQEF04	927024	1914	140 - 457	11666	Thr-1 to Thr-9, Arg-43 to Ala-56.	H0521: 1 and S0308: 1.		
HDQEF89	786393	1915	228 - 392	11667	His-12 to Glu-19, Ala-48 to Ala-55.	H0271: 1, H0416: 1 and H0521: 1.		
HDQEJ75	766698	1916	3 - 323	11668	Ser-91 to Ala-107.	H0650: 1, H0488: 1 and H0521: 1.		
HDQEN22	931041	1917	65 - 211	11669	Pro-23 to Lys-30.	H0581: 1 and H0521: 1.		
HDQES62	792766	1918	25 - 216	11670		H0521: 2 and H0445: 1.		
HDQET03	923015	1919	250 - 402	11671	Arg-3 to Arg-8.	H0521: 2		
HDQET24	805486	1920	275 - 559	11672		H0521: 2		
HDQEU26	959940	1921	274 - 423	11673		S0114: 1 and H0521: 1.		
HDQEU63	852614	1922	126 - 374	11674	Pro-14 to Leu-23, Pro-30 to Gly-44.	H0521: 2 and H0522: 1.	16q12-q13	114835, 132700, 172490, 600968
HDQEU92	973212	1923	142 - 279	11675	Ser-1 to Ala-6.	H0521: 3		
HDQFA01	924539	1924	508 - 702	11676		H0250: 4, H0423: 4, L0766: 3, H0657: 2, S0116: 1, H0369: 1, H0581: 1, H0488: 1, H0641: 1, L0792: 1, L0665: 1 and H0521: 1.		
HDQFC85	783797	1925	98 - 541	11677	Glu-29 to Cys-39, Pro-91 to Pro-96,	H0521: 2 and H0090: 1.		

					Arg-109 to Thr-118.			
HDQFK04	926758	1926	88 - 345	11678		H0635: 1 and H0521: 1.		
HDQFU11	966106	1927	2 - 331	11679	Gly-1 to Ala-15, Leu-37 to Lys-42, Ala-54 to Glu-69, Pro-76 to Gly-84.	H0521: 2		
HDQFW03	915968	1928	389 - 556	11680	Ile-12 to Gln-21.	H0521: 2		
HDQGB04	852577	1929	179 - 358	11681		L0143: 1, H0521: 1 and H0542: 1.		
HDQGC76	950734	1930	177 - 299	11682	Lys-17 to Arg-27.	H0521: 1 and H0445: 1.		
HDQGG01	974439	1931	3 - 215	11683		H0521: 3		
HDQGK63	875920	1932	99 - 395	11684		H0521: 2		
HDQGK93	791744	1933	289 - 441	11685	Pro-24 to Pro-30.	H0521: 3, S0144: 1 and S0002: 1.		
HDQGQ11	966100	1934	217 - 471	11686		H0521: 2		
HDQGR80	880654	1935	199 - 450	11687	Glu-53 to Lys-70, Gly-77 to Asn-84.	H0521: 2		
HDQGT70	909848	1936	2 - 448	11688	Gln-1 to Gln-10.	H0521: 5		
HDQHF10	963485	1937	273 - 1	11689		H0521: 2		
HDQHK04	926988	1938	241 - 540	11690	Ser-8 to Ser-16, His-56 to Phe-61.	L0745: 2, H0581: 1, L0527: 1, H0521: 1 and L0744: 1.		
HDQHM43	852556	1939	181 - 345	11691	Gly-19 to Gly-28.	H0521: 1 and H0436: 1.		
HDQHO04	926976	1940	6 - 104	11692		H0305: 1, H0589: 1 and H0521: 1.		
HDQHO07	852555	1941	133 - 321	11693		H0521: 2		
HDQHP44	811790	1942	2 - 430	11694	Phe-6 to Asn-14, Thr-73 to Ala-78, Pro-84 to Glu-90, Ala-94 to Gly-100, Gln-107 to Pro-116.	H0521: 2		
HDQHQ83	973129	1943	307 - 119	11695		H0521: 3		
HDQHT10	963481	1944	1 - 219	11696	Pro-8 to Ser-39, Cys-44 to Ser-50, Leu-66 to Cys-73.	H0521: 2		
HDQHZ10	961336	1945	2 - 349	11697	Gln-3 to Ile-17, Pro-24 to Gly-29,	H0521: 2, S0002: 1 and L0589: 1.		

					His-67 to Gly-73, Pro-81 to Lys-94.			
HDQHZ22	879416	1946	1 - 408	11698	Gly-1 to Gly-6, Asp-62 to Arg-68.	AR089: 7, AR061: 3 H0521: 2		
HDQIH19	974391	1947	421 - 266	11699		H0521: 3		
HDQIJ11	966021	1948	34 - 348	11700		H0521: 2, H0421: 1 and L0659: 1.		
HDQMA71	926528	1949	432 - 590	11701		H0318: 1 and H0524: 1.		
HDQMD13	924108	1950	1 - 273	11702	Thr-1 to Pro-7, His-34 to Arg-40.	H0524: 10		
HDQMD14	783547	1951	3 - 209	11703	Arg-1 to Pro-8.	H0524: 10		
HDQPI83	780731	1952	135 - 326	11704		H0522: 2		
HDRAB68	752316	1953	83 - 169	11705		H0537: 3		
HDTAG28	765834	1954	36 - 173	11706		H0486: 1 and S0344: 1.		
HDTAQ55	728772	1955	88 - 264	11707	Arg-43 to Tyr-49.	H0159: 1 and H0486: 1.		
HDTAY23	973925	1956	79 - 366	11708	Pro-39 to Ser-47.	S0298: 1 and H0486: 1.		
	974565	9561	63 - 500	19313	Arg-46 to Leu-58.			
HDTBF27	683389	1957	531 - 656	11709	Lys-1 to Thr-10, Arg-28 to Gln-37.	H0580: 1, H0486: 1, L0803: 1, L0666: 1 and L0777: 1.		
HDTBL45	785534	1958	54 - 404	11710	Gly-5 to Cys-12, Glu-26 to Arg-52, Ala-90 to Pro-97, Ala-102 to Glu-107.	AR061: 3, AR089: 2 H0485: 1, H0486: 1 and H0457: 1.		
HDTBO48	945083	1959	3 - 491	11711		AR089: 38, AR061: 5 H0486: 2		
HDTBO74	765555	1960	82 - 234	11712	Ala-1 to Leu-13.	H0090: 2, H0486: 1, L0766: 1, L0743: 1, L0751: 1, L0777: 1 and H0422: 1.		
HDTBO94	869818	1961	2 - 301	11713	Leu-24 to Trp-42.	H0486: 1, H0521: 1, L0748: 1 and L0757: 1.		
HDTBQ20	886757	1962	187 - 471	11714	Pro-16 to Thr-26, Pro-31 to Thr-42.	H0486: 2		
HDTBQ34	703446	1963	1 - 138	11715	Glu-26 to His-33.	H0486: 2		
HDTBQ47	720298	1964	48 - 293	11716	Tyr-51 to Glu-56, Thr-76 to Ala-82.	H0486: 2 and L0662: 1.		
HDTBQ56	799840	1965	797 - 1024	11717		L0777: 10, H0486: 4,		

						L0666: 2, L0740: 2, L0646: 1, L0662: 1, L0766: 1, L0803: 1, L0633: 1, L0657: 1, L0532: 1, L0663: 1 and L0665: 1.		
HDTBQ80	775420	1966	256 - 369	11718	Leu-22 to Thr-38.	H0486: 2		
HDTBR15	660236	1967	11 - 193	11719		H0486: 2		
HDTBR50	846630	1968	130 - 342	11720	Ala-2 to Glu-7, Arg-50 to Glu-58.	AR089: 41, AR061: 4 H0486: 2		
HDTBV02	920008	1969	291 - 473	11721		H0486: 1 and H0477: 1.		
HDTBV18	893761	1970	379 - 239	11722		H0486: 1 and H0271: 1.		
HDTBW52	726060	1971	319 - 519	11723		H0486: 3 and H0521: 1.		
HDTBX47	719530	1972	107 - 229	11724		H0486: 2		
HDTBY88	934472	1973	3 - 464	11725	His-130 to Lys-140.	AR089: 8, AR061: 2 S0218: 1 and H0486: 1.		
HDTCC60	740350	1974	33 - 215	11726	Asp-14 to Gln-19.	H0306: 1 and H0486: 1.		
HDTDA45	799875	1975	355 - 636	11727	Ala-30 to Ser-53, Pro-60 to Gly-68.	L0748: 3, H0485: 1 and H0486: 1.		
HDTDC23	675331	1976	362 - 523	11728		H0486: 1 and H0521: 1.		
HDTDC53	916348	1977	105 - 233	11729	Thr-25 to Lys-43.	H0486: 2		
HDTDD49	799872	1978	261 - 443	11730		H0486: 1, L0663: 1 and H0436: 1.		
HDTDG42	713588	1979	333 - 205	11731	Tyr-1 to Lys-11, Ser-29 to Lys-43.	H0486: 1 and S0002: 1.		
HDTDG70	587730	1980	83 - 343	11732	Trp-34 to Ile-52, Pro-65 to Gln-70.	H0486: 1, L0766: 1 and H0521: 1.		
HDTDL88	868565	1981	62 - 310	11733	Cys-7 to Ser-15.	H0486: 1, H0318: 1 and L0750: 1.		
HDTDP37	571417	1982	214 - 351	11734	Asp-18 to Lys-26.	H0255: 2 and H0486: 1.		
HDTDT33	587773	1983	1 - 216	11735	Lys-42 to Ser-55.	H0305: 3 and H0486: 1.		
HDTEI19	912765	1984	2 - 313	11736	Ser-42 to Asn-48, Ser-76 to Ser-89.	H0486: 1 and H0439: 1.	19q13.32-q13.33	134790, 152780, 152780, 600040
HDTEJ30	915445	1985	36 - 206	11737		H0486: 1 and H0522: 1.		
HDTEN69	650840	1986	1 - 240	11738		H0486: 1 and H0542: 1.		
HDTES50	964709	1987	3 - 395	11739		AR089: 1, AR061: 1 H0341: 1 and H0486: 1.		

HDTFC55	731397	1988	264 - 530	11740	Glu-15 to Gly-20.	H0255: 1 and H0486: 1.		
HDTFD13	835596	1989	36 - 443	11741		H0607: 2, L0745: 2 and H0486: 1.		
HDTFE23	675407	1990	22 - 312	11742	Pro-63 to Ser-69.	H0486: 1 and H0521: 1.		
HDTFI53	738221	1991	1 - 63	11743		H0486: 1 and H0543: 1.		
HDTFP51	924898	1992	2 - 325	11744	Asn-1 to Arg-6.	S0114: 1, H0486: 1 and H0423: 1.		
HDTFQ26	681234	1993	161 - 304	11745	Ser-9 to Arg-14.	L0803: 2, S0114: 1, H0486: 1, L0662: 1, L0754: 1 and L0747: 1.		
HDTGE59	893721	1994	79 - 186	11746		H0486: 2		
HDTGI15	953336	1995	164 - 349	11747	Val-1 to Cys-7, Lys-11 to Pro-18.	H0305: 1, H0486: 1 and L0804: 1.		
HDTGJ03	923452	1996	2 - 223	11748	Gly-19 to Phe-27, Lys-42 to Lys-53.	H0608: 1 and H0486: 1.		
HDTGJ64	799860	1997	62 - 142	11749	Arg-22 to Ser-27.	H0486: 2		
HDTGK27	682689	1998	2 - 112	11750	Glu-26 to Pro-31.	L0717: 1, H0486: 1 and H0421: 1.		
HDTGP34	855739	1999	273 - 431	11751	Lys-48 to Lys-53.	H0486: 1, H0063: 1 and L0743: 1.		
HDTGP93	724545	2000	54 - 197	11752	Asp-27 to Asp-40.	H0486: 1 and S0052: 1.		
HDTGW21	785047	2001	3 - 383	11753	Leu-9 to Ser-14.	H0486: 1 and H0069: 1.		
HDTGW52	726197	2002	1 - 114	11754		H0341: 1 and H0486: 1.		
HDTHA89	838813	2003	2 - 214	11755		H0486: 1 and H0521: 1.		
HDTHB41	711849	2004	170 - 334	11756		H0486: 1 and H0423: 1.		
HDTHE95	795180	2005	151 - 330	11757	Ile-24 to Thr-32, Tyr-42 to Arg-48.	H0486: 1, H0444: 1 and H0445: 1.		
HDTHK91	789790	2006	229 - 402	11758	Lys-20 to Pro-26, Gly-42 to Ser-47.	H0486: 1 and H0422: 1.		
HDTHM43	851854	2007	3 - 233	11759	Pro-1 to Gly-6.	H0486: 2		
HDTHO45	799861	2008	1 - 123	11760	Ser-28 to Cys-36.	H0486: 3		
HDTHQ15	923899	2009	1 - 612	11761	Arg-36 to Asp-42, Ala-55 to Lys-62, Ser-71 to Gly-81, Ala-87 to Ser-93.	L0766: 2, H0486: 1 and H0521: 1.		
HDTHQ55	799859	2010	1 - 198	11762	Gly-1 to Cys-8.	H0486: 2		

HDTHW16	799839	2011	329 - 571	11763	Val-28 to Leu-34.	H0486: 2		
HDTHZ46	957669	2012	119 - 370	11764	Pro-44 to Pro-49.	H0255: 1, H0486: 1 and L0748: 1.	22q11	104170, 104170, 104170, 115470, 142360, 188400, 188400, 217095, 600850, 601607
HDTIB38	971665	2013	738 - 529	11765	Asn-18 to Asn-24.	H0486: 2		
HDTIC48	828038	2014	215 - 376	11766		H0486: 2		
HDTIC74	838780	2015	310 - 453	11767	Lys-1 to Lys-7, Thr-24 to Gly-32.	H0486: 2		
HDTID61	908946	2016	332 - 547	11768	Glu-21 to Cys-29, Cys-43 to Thr-53, His-59 to Tyr-72.	AR089: 1, AR061: 0 H0486: 2		
HDTIF01	883070	2017	168 - 527	11769	Met-27 to Glu-34.	AR089: 57, AR061: 40 H0486: 2		
HDTIF90	787413	2018	2 - 259	11770	Cys-37 to Glu-43, Lys-58 to Lys-63, Glu-71 to Asp-78.	H0271: 2 and H0486: 1.		
HDTIG34	799851	2019	191 - 355	11771	Ser-22 to Arg-28, Glu-50 to Arg-55.	H0486: 3		
HDTIH43	935643	2020	260 - 550	11772	Leu-32 to Trp-38.	H0486: 1 and H0436: 1.		
HDTIM13	926952	2021	137 - 451	11773		H0486: 2		
HDTIR88	931122	2022	229 - 411	11774	Tyr-10 to Trp-16.	H0486: 3, L0803: 3, L0774: 2, L0772: 1, L0666: 1, L0740: 1 and L0731: 1.		
HDTIV22	883109	2023	31 - 411	11775	Asn-1 to His-12.	H0486: 2		
HDTIV37	799867	2024	2 - 232	11776	Tyr-14 to Asn-20.	H0486: 2		
HDTIV62	799835	2025	431 - 619	11777		H0486: 2		
HDTIW03	922928	2026	240 - 413	11778		H0486: 2		
HDTIX57	799828	2027	2 - 205	11779	Asn-1 to Glu-11, Glu-60 to Tyr-68.	H0486: 2		
HDTIY24	799854	2028	288 - 404	11780		H0486: 2		
HDTIY26	799855	2029	127 - 312	11781	Cys-2 to Lys-8.	H0486: 2		
HDTIY41	799853	2030	80 - 334	11782	Ser-73 to Lys-79.	H0486: 2 and L0766: 1.		
HDTIY69	799857	2031	71 - 388	11783	Glu-1 to Arg-7, Ser-14 to Gly-21,	H0486: 2		

					Thr-62 to Tyr-68.			
HDTIZ44	925574	2032	1 - 402	11784		L0766: 3, H0486: 2, L0764: 2, H0657: 1, H0271: 1, L0794: 1, H0576: 1 and L0779: 1.		
HDTJA54	799856	2033	15 - 77	11785		H0486: 2		
HDTJC51	799850	2034	8 - 244	11786	Gln-1 to Lys-13, Ser-49 to Asp-55.	H0486: 3		
HDTJI16	918631	2035	2 - 181	11787	Ser-21 to Gly-26.	H0486: 1, L0766: 1 and H0543: 1.		
HDTJI37	799834	2036	311 - 553	11788	Glu-1 to Thr-6, Leu-34 to Ala-40.	AR089: 46, AR061: 7 H0486: 2, L0663: 1 and L0754: 1.		
HDTJJ02	913787	2037	3 - 116	11789		AR089: 34, AR061: 11 H0486: 2		
HDTJJ55	856558	2038	488 - 691	11790	Phe-2 to Gln-11, Arg-24 to His-34, Pro-50 to Val-63.	L0761: 3, L0779: 2, L0777: 2, H0486: 1, H0591: 1, S0426: 1, L0800: 1, S0053: 1 and L0759: 1.		
HDTJK81	851897	2039	287 - 469	11791	Glu-8 to Ser-16.	H0486: 2		
HDTJQ18	805597	2040	2 - 376	11792	Gly-21 to Cys-27, Gly-32 to Ser-47, Arg-60 to Gln-72, Ser-102 to Leu-107.	H0486: 2		
HDTJT70	918563	2041	881 - 1108	11793		H0486: 2 and L0758: 2.		
HDTJU06	934242	2042	175 - 291	11794	Lys-11 to Pro-26.	H0486: 2 and H0445: 1.		
HDTKP88	799865	2043	349 - 525	11795		H0486: 2		
HDTKQ14	886936	2044	1 - 555	11796	Ser-60 to Thr-71, Thr-82 to Leu-94, Gln-113 to Asp-123, Val-125 to Tyr-133, Leu-144 to Gly-149.	AR054: 60, AR051: 40, AR050: 36, AR089: 5, AR061: 2 H0521: 4, H0486: 2, S0002: 2, L0770: 2, L0769: 2, L0766: 2, L0518: 2, L0783: 2, L0777: 2, L0731: 2, H0422: 2, H0556: 1, H0583: 1, H0650: 1, H0657: 1,		

						H0179: 1, L0055: 1, H0488: 1, S0426: 1, L0662: 1, - L0775: 1, L0655: 1, L0665: 1, S0053: 1, H0659: 1, L0754: 1, L0779: 1, L0759: 1 and H0543: 1.		
HDTKS28	885471	2045	217 - 525	11797	Asp-6 to Glu-11.	H0486: 2		
HDTKU06	934269	2046	81 - 260	11798	Ser-30 to Leu-38.	H0486: 2 and L0758: 1.		
HDTKX89	799829	2047	191 - 364	11799		H0486: 2		
HDTKZ74	799842	2048	449 - 610	11800	Thr-2 to Asn-7.	H0486: 2		
HDTLA08	958307	2049	3 - 278	11801	Ser-45 to Lys-53.	H0402: 2, H0486: 2 and L0776: 1.		
HDTLA53	851826	2050	3 - 170	11802	Arg-18 to Glu-24, Phe-27 to Gly-37.	H0486: 2		
HDTLB55	905872	2051	129 - 518	11803	Ala-15 to Asp-34, Met-43 to Ser-48, Gln-80 to Glu-94.	H0580: 1 and H0486: 1.		
HDTLD17	908601	2052	1 - 450	11804		AR089: 1, AR061: 0 H0486: 3		
HDTLH19	959932	2053	42 - 293	11805	Asn-5 to Lys-14, Ala-69 to Ser-74.	S0114: 1 and H0486: 1.		
HDTLK51	851846	2054	459 - 217	11806		H0486: 2		
HDTLN80	805562	2055	326 - 553	11807		H0486: 1 and H0521: 1.		
HDTLP72	799837	2056	3 - 161	11808		H0486: 2		
HDTLX24	799838	2057	1 - 306	11809	Gln-11 to Glu-17, Lys-44 to Gln-51, Glu-78 to Ser-83.	H0486: 2		
HDTMG55	959633	2058	394 - 507	11810	Glu-16 to Val-22.	H0255: 1 and H0486: 1.		
HDTMH14	799847	2059	163 - 456	11811	Pro-14 to Leu-29, Ile-66 to Ser-71.	H0486: 2		
HEIAA07	920257	2060	1 - 171	11812	Pro-17 to Glu-23, Ala-33 to Leu-40, Leu-48 to Lys-56.	S0140: 9 and H0179: 2.		
HEIAA38	907594	2061	191 - 337	11813	Arg-1 to Gly-6.	S0140: 3		
HEIAB13	677400	2062	65 - 238	11814	Pro-24 to Gly-34, Gly-49 to Tyr-54.	S0140: 2		

HEIAB27	683474	2063	3 - 326	11815		L0766: 2, S0212: 1 and S0140: 1.		
HEIAB68	721652	2064	1 - 81	11816	Lys-1 to Lys-14.	S0140: 2		
HEIAC83	920022	2065	52 - 132	11817		S0140: 2		
HEIAD05	932397	2066	53 - 307	11818	Val-2 to Ala-8, Lys-11 to Cys-17, Glu-28 to Gly-33.	S0140: 2		
HEIAE05	932390	2067	102 - 224	11819		S0140: 2		
HEIAE76	577254	2068	197 - 301	11820		S0140: 2		
HEIAG38	577308	2069	1 - 180	11821		S0053: 2, S0140: 1 and L0665: 1.		
HEIAH70	757174	2070	172 - 339	11822	Pro-7 to Asp-12, Lys-29 to Cys-36.	S0140: 2		
HEIAL53	466308	2071	82 - 330	11823	Tyr-3 to Val-26, Leu-41 to Ser-48.	S0140: 2		
HEIAO01	916438	2072	72 - 242	11824	Trp-1 to Asp-18, Glu-44 to Asn-57.	S0218: 1 and S0140: 1.		
HEIAO14	851197	2073	152 - 286	11825	Gly-38 to Ile-44.	S0140: 2		
HEIAO48	917281	2074	17 - 175	11826	Thr-48 to Gln-53.	S0140: 2 and T0002: 1.		
HEIAO51	725649	2075	85 - 222	11827	Met-8 to Thr-13.	S0140: 2		
HEIAT07	953574	2076	3 - 362	11828	Pro-18 to Lys-26.	S0140: 2		
HEIAT36	576598	2077	61 - 288	11829	Ala-2 to Ser-9, Lys-41 to Asp-50.	S0140: 2, L0769: 1 and L0790: 1.		
HEIAU68	753000	2078	223 - 110	11830		S0140: 2		
HEIAV20	523766	2079	129 - 233	11831		H0271: 2, S0140: 1 and H0179: 1.		
HEICC82	781171	2080	188 - 334	11832		S0140: 2		
HEOAB19	939448	2081	2 - 322	11833	Glu-17 to Ala-35.	H0581: 1 and H0439: 1.		
HEOAD29	690762	2082	68 - 277	11834	Glu-6 to Asn-13.	H0439: 1 and S0053: 1.		
HEOMC23	850094	2083	215 - 403	11835		H0457: 2		
HEOME43	967292	2084	151 - 1350	11836	Gly-1 to Arg-8.	H0255: 1 and H0457: 1.		
HEOMF61	573059	2085	2 - 202	11837	Arg-1 to Cys-8, Leu-42 to Val-52.	S0052: 2 and H0457: 1.		
HEOMG01	916672	2086	149 - 472	11838	Glu-44 to Ser-59, Cys-67 to Cys-72.	H0457: 3		

HEOMG04	922824	2087	3 - 77	11839	Asp-1 to Lys-6.	H0457: 2		
HEOMG16	933969	2088	64 - 360	11840	Asn-2 to Lys-9, Ala-77 to Trp-83.	H0457: 6		
HEOMG25	678190	2089	163 - 357	11841	Pro-16 to Glu-21.	H0457: 6, S0114: 2, H0556: 1 and S0222: 1.		
HEOMG32	699343	2090	139 - 423	11842		H0457: 7		
HEOMG48	963338	2091	3 - 242	11843	Pro-12 to Cys-19, Val-50 to Ser-56.	H0457: 4		
HEOMG78	920911	2092	1 - 330	11844		H0457: 2, H0264: 1, L0748: 1, L0754: 1 and L0593: 1.		
HEOMH04	854342	2093	461 - 667	11845		H0457: 9		
HEOMH31	951834	2094	376 - 603	11846		H0457: 4	5p15.2	123000, 602568
HEOMH77	721342	2095	229 - 390	11847	Pro-11 to Arg-20.	H0457: 8, H0580: 1, H0013: 1, H0250: 1, H0635: 1 and L0766: 1.		
HEOMH89	787109	2096	3 - 347	11848	Asp-1 to Trp-10, Ala-13 to Pro-19, Asp-27 to Lys-45, Pro-47 to Cys-53, Thr-89 to Gly-97.	H0341: 1, H0581: 1 and H0457: 1.		
HEOMK83	918374	2097	225 - 494	11849	Gly-11 to Arg-16, Ser-23 to Trp-31.	H0457: 2 and H0581: 1.		
HEOML13	893874	2098	3 - 353	11850	Glu-9 to Trp-14, Pro-19 to Asp-25, Glu-32 to Glu-42, Gly-66 to Glu-71.	H0457: 3		
HEOML73	724043	2099	302 - 412	11851		H0457: 3		
HEOMM10	964736	2100	72 - 209	11852	Lys-5 to Thr-16.	H0457: 3		
HEOMN02	913819	2101	42 - 539	11853	Arg-3 to Gln-9, Met-30 to Gly-45, Ile-47 to Ile-68.	H0457: 5 and H0581: 1.		
HEOMO43	855659	2102	208 - 411	11854		H0457: 2		
HEOMO57	795128	2103	68 - 262	11855	Lys-9 to Ile-14, Lys-28 to Val-41.	H0457: 1 and H0444: 1.		
HEOMP31	698087	2104	178 - 378	11856	Gly-24 to Ser-30.	H0457: 1, H0521: 1, H0445: 1 and L0600: 1.		

HEOMP73	750609	2105	164 - 331	11857		H0457: 3		
HEOMQ17	851049	2106	173 - 478	11858	Ser-37 to Asp-45.	H0457: 2		
HEOMQ75	965882	2107	71 - 196	11859	Leu-16 to Leu-22, Glu-31 to Leu-40.	H0457: 2		
HEOMQ80	835599	2108	35 - 202	11860	Gly-1 to Asn-9.	H0457: 2		
HEOMR13	657317	2109	375 - 671	11861		H0457: 1 and H0445: 1.		
HEOMR57	575739	2110	115 - 204	11862		H0457: 2		
HEOMR92	963130	2111	207 - 365	11863	Ser-17 to Arg-30.	H0457: 2		
HEOMR96	855652	2112	202 - 432	11864	Asp-1 to Gly-8, Lys-11 to Trp-17, Gly-21 to Cys-44, Ser-70 to Arg-77.	H0457: 2		
HEOMS08	959581	2113	54 - 206	11865	Arg-34 to Val-42.	H0457: 2		
HEOMS65	969184	2114	281 - 487	11866	Ser-17 to Glu-22.	H0457: 3		
HEOMS85	662928	2115	1 - 414	11867		H0457: 1 and H0521: 1.		
HEOMS92	735720	2116	3 - 140	11868	Pro-3 to Pro-17, Pro-30 to Pro-42.	H0457: 2		
HEOMT38	850980	2117	2 - 427	11869	Arg-1 to Gln-9, Lys-36 to Glu-42.	H0457: 2		
HEOMT79	936687	2118	224 - 487	11870		H0457: 3		
HEOMU07	953475	2119	234 - 115	11871		H0457: 2		
HEOMU23	675971	2120	239 - 388	11872		H0457: 2, H0486: 1, H0264: 1, L0768: 1, L0666: 1, H0436: 1, L0754: 1, H0445: 1 and H0542: 1.		
HEOMU79	965900	2121	2 - 283	11873	Pro-36 to Pro-44, Thr-73 to Pro-90.	H0457: 4		
HEOMV11	847274	2122	3 - 296	11874	Asp-1 to Gly-19, Gln-49 to Gly-57, Asp-71 to Lys-86.	H0457: 3		
HEOMV16	958211	2123	234 - 464	11875	Gly-14 to Lys-24, Glu-34 to Ser-39.	H0457: 3 and L0438: 1.		
HEOMV54	866586	2124	293 - 418	11876	Ile-4 to Gln-15.	S0114: 1, H0457: 1 and L0518: 1.		
HEOMV81	915093	2125	328 - 504	11877		H0457: 2		
HEOMW26	418125	2126	2 - 250	11878	Pro-1 to Pro-7.	H0457: 1 and S0052: 1.		

HEOMW83	659808	2127	211 - 336	11879		H0457: 2		
HEOMX04	615337	2128	1 - 180	11880	Thr-12 to Ser-27, Gln-52 to Arg-60.	H0457: 2		
HEOMX61	958233	2129	256 - 435	11881		H0457: 5		
HEOMX65	575919	2130	3 - 206	11882		H0457: 2		
HEOMX92	919200	2131	132 - 434	11883	Ser-35 to Pro-43.	H0457: 5		
	961148	9562	41 - 244	19314	Lys-12 to Ser-19, Thr-35 to Met-40, Pro-43 to Tyr-48.			
HEONC06	855649	2132	119 - 322	11884	Lys-32 to Leu-44, Lys-62 to Cys-68.	H0457: 7		
HEOND75	918209	2133	2 - 304	11885		H0457: 4		
HEONJ79	506226	2134	118 - 300	11886		H0457: 2		
HEONK15	660365	2135	128 - 442	11887	Pro-9 to Ser-15, Ile-24 to Gly-29, Pro-41 to Arg-51.	H0457: 2	19q13.3	113900, 126340, 126391, 130410, 134790, 138570, 160900, 173850, 258501, 600040, 602225, 602225
HEONM30	692726	2136	136 - 270	11888	Leu-5 to Leu-22.	H0457: 2		
HEONM69	855638	2137	95 - 520	11889	Pro-53 to Asn-66, Pro-92 to Ser-98, Ser-106 to Gly-114.	H0457: 4	9q34.13	
HEONN28	745144	2138	133 - 291	11890	Thr-41 to Asn-53.	H0457: 2		
HEONO81	792074	2139	124 - 297	11891	Tyr-29 to Glu-35, Val-47 to Tyr-53.	H0486: 1 and H0457: 1.	1	
HEONP93	792377	2140	133 - 273	11892	Thr-39 to Phe-47.	H0457: 2 and L0740: 1.		
HEONQ08	959556	2141	247 - 528	11893	Ser-12 to Gly-20, Pro-50 to Leu-55.	H0457: 11 and L0543: 1.		
HEONQ19	930705	2142	3 - 806	11894	Ala-13 to Arg-20, Gln-35 to Lys-48.	AR089: 2, AR061: 0 H0457: 9, L0596: 3, L0803: 2, H0673: 1, L0455: 1, L0369: 1, L0764: 1, L0389: 1, L0375: 1, L0655: 1, L0809: 1, L0790: 1 and L0752: 1.		

HEONQ58	965881	2143	315 - 518	11895	Ile-1 to Lys-9.	H0457: 8, H0656: 1 and L0366: 1.		
HEONQ65	967588	2144	3 - 353	11896	Leu-11 to Gly-16.	H0457: 3, S0212: 1 and H0069: 1.		
HEONQ69	556544	2145	2 - 340	11897		H0457: 3, H0264: 2 and H0656: 1.		
HEONU26	577429	2146	3 - 161	11898		S0116: 1, H0457: 1 and H0521: 1.		
HEONU75	851054	2147	1 - 228	11899	Thr-2 to Asn-8, Ser-15 to Pro-27.	H0457: 2		
HEONV59	949152	2148	1 - 279	11900	Ala-3 to Gly-10.	AR061: 0, AR089: 0 H0457: 1 and H0521: 1.		
HEONW15	575812	2149	237 - 392	11901	Phe-9 to Glu-20, Leu-30 to Arg-45.	H0457: 3		
HEONX19	668740	2150	2 - 151	11902	Thr-1 to Ser-6.	L0766: 5, H0402: 1, H0457: 1 and L0779: 1.		
HEONX49	485897	2151	183 - 494	11903	Glu-29 to Leu-34, Asn-36 to His-41, His-45 to Pro-55.	H0457: 2 and H0556: 1.		
	851020	9563	106 - 204	19315				
	851021	9564	582 - 869	19316				
HEOOB36	830013	2152	301 - 375	11904		H0457: 4		
HEOOD03	923505	2153	90 - 314	11905	Pro-6 to Trp-11, Phe-21 to Asp-26.	H0457: 3		
HEOOD59	738991	2154	1 - 213	11906	Pro-21 to Phe-32.	H0457: 2		
HEOOV40	710800	2155	210 - 371	11907		H0457: 3 and H0318: 2.		
HEOPE28	926837	2156	3 - 314	11908	Pro-1 to Lys-21, Lys-28 to Lys-37, Gly-65 to Pro-70, Arg-81 to Asp-86.	H0457: 8	16	
HEOPE58	851009	2157	257 - 421	11909	Phe-28 to Val-36, Phe-44 to Pro-49.	AR089: 1, AR061: 0 H0457: 4		
HEOPF03	839868	2158	189 - 377	11910		H0457: 3		
HEOPF18	918405	2159	2 - 310	11911	Val-6 to Tyr-11, Thr-14 to Asn-19, Thr-41 to Arg-50,	H0457: 2		

					Gln-62 to Ile-69, Glu-84 to Trp-89, Thr-93 to Pro-98.			
HEOPF25	934171	2160	127 - 522	11912	Thr-13 to Gly-27, Arg-60 to Gly-69, Gly-98 to Trp-106.	H0457: 6		
HEOPF33	969695	2161	22 - 342	11913	Gln-53 to Trp-58, Ala-66 to Gly-74, Gln-98 to Glu-103.	H0457: 6, L0766: 1 and L0789: 1.		
HEOPF56	850925	2162	372 - 599	11914	Ser-23 to Ala-32, Pro-57 to Ser-63.	H0457: 6 and L0036: 1.		
HEOPG01	915047	2163	3 - 254	11915	Ser-23 to Glu-34, Glu-48 to Gly-55.	H0457: 5		
HEOPI69	883161	2164	142 - 594	11916	Gly-7 to Thr-13, Pro-78 to Phe-85.	H0457: 5		
HEOPI73	850936	2165	316 - 540	11917	Ala-1 to Met-6, Arg-15 to Pro-20, Phe-47 to Gly-53.	H0457: 5		
HEOPJ41	855634	2166	300 - 473	11918	Ser-6 to Ala-12.	H0457: 5		
HEOPK43	930942	2167	92 - 304	11919	Pro-27 to His-34, Arg-40 to Ser-48.	H0457: 4		
HEOPK47	966327	2168	366 - 500	11920		H0457: 1 and S0053: 1.		
HEOPK52	883170	2169	66 - 356	11921		H0457: 4		
HEOPK90	850883	2170	223 - 576	11922	Lys-36 to Met-47, Pro-62 to Trp-73, Gly-75 to Gly-81.	H0457: 9 and S0114: 2.		
HEOPN73	851002	2171	172 - 276	11923	Glu-1 to Lys-12, Ser-24 to Gln-35.	H0457: 2 and H0069: 1.		
HEOPN78	918205	2172	85 - 327	11924	Pro-6 to Arg-17, Ser-42 to Ser-56.	H0457: 4		
HEOPN95	973440	2173	185 - 454	11925	Leu-1 to Glu-6, Asn-28 to Gly-38, Ser-42 to Pro-47.	H0457: 4 and H0423: 1.		
HEOPO08	958184	2174	2 - 226	11926		H0457: 4		
HEOPP30	850916	2175	68 - 334	11927	Glu-23 to Asn-31, Ser-37 to Ala-43,	H0457: 8		

					Phe-77 to Trp-89.			
HEOPQ06	934147	2176	163 - 516	11928	Pro-21 to Cys-30, Ser-44 to Pro-49, Pro-65 to Ser-70, Cys-74 to Gly-85, Lys-98 to Glu-103.	H0457: 4		
HEOPW04	850948	2177	393 - 596	11929		H0457: 3		
HEOPW38	926764	2178	3 - 242	11930	Val-7 to Ser-26, Gln-43 to Arg-49, Lys-69 to Lys-76.	H0457: 3		
HEOPW67	840050	2179	212 - 367	11931	Glu-1 to Lys-14.	H0457: 2		
HEOPX85	855625	2180	1 - 201	11932	Thr-56 to Asp-62.	H0457: 2		
HEOPY05	918438	2181	294 - 434	11933		H0457: 7		
HEOPZ02	918407	2182	290 - 505	11934	Thr-42 to Ser-47.	H0457: 5		
HEOPZ05	928257	2183	22 - 144	11935		H0457: 2		
HEOPZ11	965970	2184	232 - 453	11936	Thr-2 to Cys-15, Arg-34 to Thr-39.	H0457: 3		
HEOPZ29	878503	2185	2 - 394	11937	Arg-1 to Gly-8, Ser-52 to Gly-59.	H0457: 3		
HEOQB30	909899	2186	175 - 423	11938	Glu-32 to Ser-41, Met-51 to Leu-65, Met-76 to Ala-83.	H0457: 3 and S0002: 1.		
HEOQC10	963398	2187	59 - 217	11939	Gln-40 to Leu-47.	H0457: 4		
HEOQC64	850981	2188	1 - 153	11940	Ser-32 to Ala-38.	H0457: 2 and L0060: 1.		
HEOQC76	909032	2189	106 - 657	11941	Ala-10 to Tyr-22, Phe-31 to Leu-37, Ser-59 to Leu-64, Tyr-70 to Lys-90.	AR089: 1, AR061: 1 H0457: 3 and L0766: 2.		
HEOQE04	922876	2190	87 - 260	11942		H0457: 3 and H0069: 1.		
HEOQF77	850974	2191	213 - 416	11943		H0457: 3		
HEOQG73	958109	2192	2 - 208	11944	His-1 to Thr-12.	H0457: 4 and L0748: 1.		
HEOQG80	850971	2193	263 - 451	11945		H0457: 2		
HEOQH81	934100	2194	371 - 568	11946		H0457: 6		
HEOQI11	965973	2195	396 - 599	11947		H0457: 4		
HEOQJ11	879559	2196	125 - 472	11948	Arg-52 to Thr-61, Thr-80 to Ala-88.	H0457: 3		

HEOQK70	934370	2197	1 - 297	11949		H0457: 4		
HEOQK72	847285	2198	2 - 160	11950		H0457: 3		
HEOQM83	850964	2199	71 - 601	11951	Arg-1 to Trp-6, Ala-8 to Pro-17, Pro-24 to Trp-41, Pro-46 to Cys-58, Pro-120 to Pro-127.	H0457: 2	3p21.1	150250, 164500, 168468, 182280, 238310, 600163, 601226, 601916
HEOQN06	934202	2200	479 - 772	11952		H0457: 9 and L0366: 1.		
HEOQN15	864110	2201	191 - 30	11953	Lys-1 to Met-17, Pro-26 to Trp-35.	H0318: 1 and H0457: 1.		
HEOQN87	850957	2202	146 - 406	11954	Lys-7 to Lys-15.	H0457: 2 and H0591: 1.		
HEOQP44	942596	2203	157 - 1026	11955	Phe-62 to Arg-67, Gln-92 to Leu-104, Arg-163 to Leu-171, Ile-175 to Thr-182, Ser-237 to Ser-244, Ala-270 to Arg-277.	AR089: 1, AR061: 0 H0457: 2		
HEOQS11	965930	2204	167 - 322	11956	Phe-26 to Asp-33, Ala-42 to Leu-49.	H0457: 5		
HEOQT57	850931	2205	469 - 657	11957	His-7 to Pro-18.	H0457: 6		
HEOQT76	850932	2206	216 - 671	11958	Gly-98 to Pro-104, Phe-122 to Pro-128.	H0457: 2		
HEOQW56	883227	2207	35 - 226	11959		H0457: 2		
HEOQW81	887147	2208	580 - 2	11960	Pro-51 to Gly-58, Arg-78 to Tyr-87, Asp-161 to Ala-166, Pro-187 to Gly-193.	AR050: 124, AR054: 107, AR051: 92 H0457: 5		
HEORC12	969585	2209	73 - 249	11961	Gly-1 to Asn-7.	H0457: 1 and H0422: 1.		
HEORC48	922885	2210	541 - 801	11962		H0457: 3 and L0748: 3.		
HEORE11	965904	2211	571 - 759	11963		H0457: 3 and L0748: 1.		
HEORE22	969579	2212	583 - 699	11964	Thr-10 to Gln-16.	H0457: 12		
HEORE27	850902	2213	106 - 288	11965	Pro-17 to Lys-23, Lys-30 to Gly-46.	H0457: 6 and H0581: 1.		
HEORE79	959572	2214	89 - 295	11966	Thr-8 to Pro-17, Leu-29 to Asp-41, Ser-47 to Glu-55.	H0457: 6		

HEORF12	969580	2215	360 - 497	11967	Glu-5 to Gly-15, Cys-21 to Gln-26, Asn-38 to His-44.	H0457: 3		
HEORH20	934067	2216	3 - 140	11968		H0457: 5		
HEORI90	918166	2217	159 - 263	11969		H0457: 2		
HEORK01	914988	2218	20 - 169	11970		H0457: 2		
HEORM10	963194	2219	3 - 362	11971	Pro-11 to Ile-17.	H0457: 2		
HEORM21	839142	2220	180 - 434	11972	Ser-20 to Thr-31, Arg-33 to Gly-40, Cys-42 to Leu-50, Phe-54 to Arg-63.	H0457: 2	3q25.1-q25.2	222900, 601402
HEORR01	915015	2221	396 - 130	11973	Lys-19 to Ser-24, Ala-46 to Asn-51, Thr-63 to Trp-72.	H0457: 3 and L0749: 1.		
HEORU06	934097	2222	14 - 430	11974	Pro-4 to Gly-10.	H0457: 3		
HEOSI66	850917	2223	287 - 409	11975		H0457: 4		
HEOSJ50	922825	2224	25 - 213	11976		H0457: 2		
HEOSL01	914874	2225	272 - 544	11977	Ser-27 to Gly-32, Ser-47 to Trp-59.	H0457: 7		
HEOSL08	850951	2226	1 - 240	11978		H0457: 2		
HEOSL54	926849	2227	503 - 652	11979		H0457: 7		
HEOSN60	841869	2228	114 - 374	11980	Gly-3 to Asp-9, Ala-15 to Pro-26, Leu-80 to Thr-86.	H0457: 3 and H0580: 1.		
HEOSO01	855651	2229	10 - 315	11981	Pro-31 to Pro-39, Pro-53 to Ile-65, Phe-69 to Glu-80, Pro-97 to Ser-102.	H0457: 3 and H0486: 1.		
HEOSP05	928270	2230	2 - 199	11982	Arg-8 to Ile-20.	H0457: 2		
HEOSP06	933991	2231	70 - 348	11983	Ala-11 to Gln-29, Arg-67 to Ala-72, Pro-77 to Gly-86.	H0457: 2		
HEOSR54	855615	2232	2 - 316	11984	Pro-2 to Ser-7.	H0457: 2, H0271: 1 and H0423: 1.		
HEOSS04	926483	2233	2 - 178	11985		H0457: 2		
HEOST23	965916	2234	296 - 532	11986	Gln-31 to Ser-36,	H0457: 5		

					Gln-54 to Gly-79.			
HFSAC03	850146	2235	234 - 443	11987	Phe-14 to Trp-27.	H0445: 3; H0306: 2, S0053: 2, H0057: 1, H0179: 1, S0314: 1, L0667: 1, S0428: 1, H0436: 1 and L0599: 1.		
	960974	9565	161 - 3	19317	Ser-45 to Lys-53.			
HFSAM43	715700	2236	41 - 175	11988	Gly-9 to Glu-15.	H0057: 1 and H0445: 1.		
HFSAQ59	572813	2237	137 - 3	11989	His-1 to Ala-6, Ser-29 to Ser-44.	H0402: 2, H0057: 1 and H0436: 1.		
HFSAV59	675922	2238	11 - 163	11990		H0402: 1, H0057: 1, L0527: 1, L0809: 1 and H0445: 1.		
HFSAX51	572815	2239	413 - 267	11991		H0402: 1, H0057: 1 and L0754: 1.		
HFSBF09	573315	2240	154 - 387	11992	Pro-14 to Leu-21.	H0057: 1 and S0052: 1.		
HFSBG31	504368	2241	3 - 110	11993	Val-16 to Glu-25, Thr-31 to Gly-36.	H0057: 2		
HHEAA27	575258	2242	112 - 297	11994		H0271: 1 and H0542: 1.		
HHEAM44	726856	2243	40 - 279	11995	Ala-1 to His-10.	L0717: 1, H0521: 1, H0542: 1 and H0543: 1.		
	970602	9566	503 - 799	19318	Gly-8 to Asn-13.			
HHEAW46	718120	2244	2 - 352	11996	His-3 to Pro-11, Pro-36 to Ala-45, Pro-82 to Leu-91, Arg-104 to Trp-114.	H0542: 2, L0637: 1 and L0754: 1.		
HHEBS24	858417	2245	57 - 320	11997		H0542: 2		
HHECK11	924982	2246	47 - 235	11998	Pro-29 to Met-35, Glu-48 to His-55.	H0069: 1 and H0542: 1.		
HHECK33	871375	2247	1 - 213	11999		H0542: 2		
HHECM01	916178	2248	117 - 386	12000		S0114: 1 and H0542: 1.		
HHECM66	781893	2249	181 - 321	12001		S0002: 1, L0748: 1 and H0542: 1.		
HHECO01	915285	2250	3 - 323	12002		H0542: 2	17	
HHECR08	959125	2251	327 - 557	12003	Leu-33 to Pro-42, Ser-64 to Phe-77.	L0764: 3, H0255: 1 and H0542: 1.		
HHECT58	973110	2252	126 - 254	12004		H0542: 3		
HHECT59	858407	2253	115 - 468	12005		H0488: 1 and H0542: 1.		

HHECT70	753842	2254	29 - 160	12006	Lys-27 to Thr-35.	T0042: 1 and H0542: 1.		
HHECX82	915913	2255	2 - 457	12007		H0521: 4, H0522: 1, H0542: 1 and H0543: 1.		
HHEDB31	697806	2256	391 - 591	12008		H0255: 1 and H0542: 1.		
HHEDH57	665762	2257	231 - 413	12009	Ala-24 to Lys-32, Pro-42 to Gln-50.	L0750: 1, S0308: 1 and H0542: 1.		
HHEDJ94	906876	2258	155 - 337	12010	Asn-39 to Gln-47.	H0641: 1 and H0542: 1.		
HHEDM03	923908	2259	203 - 373	12011	Arg-7 to Asn-40.	H0542: 2		
HHEDN93	731067	2260	1 - 171	12012	Cys-12 to Leu-17.	T0002: 1 and H0542: 1.	19q13.4	134790, 191044, 600040, 600138
HHEDO53	973320	2261	2 - 58	12013		H0542: 2, H0543: 2 and H0551: 1.		
HHEDO74	463250	2262	228 - 401	12014		L0779: 3, H0542: 2, L0662: 1, L0766: 1, L0774: 1, L0776: 1 and H0423: 1.		
HHEDP88	878759	2263	3 - 332	12015	Arg-7 to Phe-15.	H0542: 2		
HHEDR27	791847	2264	1 - 459	12016	Pro-38 to Lys-46, Pro-68 to Pro-73, Leu-85 to Trp-126, Gln-147 to Thr-153.	H0069: 2 and H0542: 1.	2q13	129490, 167415, 176860, 176860, 256100
HHEDW03	923340	2265	3 - 422	12017	Lys-27 to Gly-42, Gly-67 to Gly-73, Pro-80 to Thr-105.	H0543: 2 and H0542: 1.		
HHEDW58	735609	2266	289 - 522	12018	Leu-1 to Phe-6, Leu-23 to Asp-33, Pro-35 to Arg-52.	H0486: 1 and H0542: 1.		
HHEEC07	952455	2267	1196 - 1912	12019	Pro-72 to Pro-86, Arg-92 to Val-97, Met-152 to Pro-161, Leu-164 to Arg-172, Gly-205 to Tyr-227, Leu-229 to Asn-239.	H0542: 2		
HHEEC61	741280	2268	24 - 149	12020		H0542: 2		
HHEEK88	702337	2269	62 - 244	12021		L0804: 3, L0662: 2, L0752: 2, L0757: 2, L0758: 2, H0542: 2, L0481: 1, L0021:		

						1, L0794: 1, L0774: 1, L0775: 1, L0652: 1, L0655: 1, L0659: 1, L0790: 1 and H0576: 1.		
HHEEL47	719825	2270	276 - 425	12022	Glu-1 to Ile-15.	L0805: 2, H0542: 2, L0776: 1, L0787: 1 and L0779: 1.		
HHEFB29	690073	2271	241 - 399	12023		H0445: 1 and H0542: 1.		
HHEFB73	947568	2272	155 - 316	12024	Gln-15 to Tyr-24.	H0580: 1 and H0542: 1.		
HHEFK12	966292	2273	82 - 273	12025	Lys-1 to Asn-13.	H0542: 2		
HHEFL47	973094	2274	2 - 256	12026	Ala-20 to Ala-25, Asn-60 to Trp-65.	H0542: 3		
HHEFZ58	735615	2275	2 - 223	12027	Arg-23 to Thr-28, Pro-38 to Ala-43, Met-66 to Cys-71.	H0542: 2, L0769: 1 and L0747: 1.		
HHEGA66	969467	2276	26 - 124	12028	Asp-1 to Arg-9, Glu-14 to Gln-28.	H0542: 2		
HHEHC74	974406	2277	448 - 666	12029		H0542: 3 and H0521: 1.		
HHEHD94	964103	2278	1 - 318	12030	Gly-8 to Arg-14, Gly-21 to Glu-34, Ser-39 to Ser-44.	H0542: 2	13q12	121011, 121011, 129500, 253700, 601885, 602221
HHEHU73	923895	2279	61 - 279	12031	Met-22 to Trp-27.	AR089: 64, AR061: 15 H0542: 2		
HHEHW78	973140	2280	161 - 592	12032		H0542: 2 and H0556: 1.		
HHEJH19	973230	2281	3 - 293	12033	Arg-5 to Gly-15, Pro-42 to Pro-47, Lys-58 to Pro-63.	H0542: 3		
HHEJH30	961974	2282	154 - 438	12034		H0542: 2		
HHEJY91	974407	2283	113 - 328	12035	Thr-42 to Gln-53.	H0542: 2		
HHEKG10	961957	2284	189 - 347	12036		H0542: 2		
HHEKJ20	918032	2285	96 - 227	12037	Val-1 to Gly-6, Arg-18 to Lys-40.	H0542: 2		
HHEKJ27	858384	2286	204 - 449	12038		H0542: 2		
HHEKK06	933849	2287	92 - 250	12039	Ser-31 to Arg-38.	H0542: 2		
HHEKP61	913413	2288	1 - 273	12040		AR054: 2, AR051: 2, AR050: 1 H0542: 2 and L0749: 1.		

HHEKS53	973233	2289	177 - 461	12041	Ser-22 to Ala-29, Ile-32 to Thr-38, Gln-51 to Arg-59.	H0542: 4		
HHELD03	868495	2290	383 - 640	12042		H0581: 1 and H0542: 1.		
HHELD11	974419	2291	3 - 152	12043	Lys-1 to Asn-13, Gln-33 to Pro-39, Gln-44 to His-50.	H0542: 3		
HHEMA34	704035	2292	77 - 367	12044	Thr-1 to His-6, Pro-58 to Asn-65.	H0265: 1 and H0543: 1.		
HHEMA65	719229	2293	5 - 136	12045		S0116: 1 and H0543: 1.		
HHEMD28	858303	2294	15 - 158	12046	Asn-9 to Gly-23, Gly-41 to Ser-48.	H0436: 1 and H0543: 1.		
HHEMK21	670784	2295	1 - 276	12047	Arg-8 to Pro-17, Asp-36 to Asn-49.	H0543: 2		
HHEMN76	752947	2296	301 - 450	12048		H0543: 2		
HHEMO91	790100	2297	150 - 269	12049		H0543: 2		
HHEMQ56	858289	2298	30 - 314	12050	Gly-20 to Thr-51.	H0543: 2		
HHEMQ58	952989	2299	38 - 295	12051	Gly-1 to Gly-13, Ile-35 to Leu-40.	H0521: 1 and H0543: 1.		
HHENC18	666335	2300	2 - 118	12052		S0134: 1 and H0543: 1.		
HHEND28	468911	2301	173 - 451	12053		H0179: 1 and H0543: 1.		
HHEND45	919630	2302	1 - 195	12054	Gly-1 to Lys-7.	AR089: 4, AR061: 2 H0543: 2		
HHENE18	806606	2303	63 - 425	12055	Thr-37 to Asp-45.	S0278: 1, H0543: 1 and H0423: 1.		
HHENE38	662972	2304	3 - 164	12056		H0543: 2 and S0053: 1.		
HHENE47	720255	2305	114 - 350	12057		H0423: 2, H0254: 1, H0250: 1 and H0543: 1.		
HHENG31	917904	2306	225 - 524	12058	Pro-1 to Phe-6, Pro-31 to Ser-37, Cys-85 to Asn-90.	L0740: 3, H0657: 2, H0421: 1, L0761: 1, L0662: 1, L0766: 1, L0776: 1, L0512: 1, L0748: 1, L0750: 1, L0758: 1 and H0543: 1.		
HHENH93	691023	2307	8 - 391	12059	Thr-1 to Gly-6, Pro-13 to Trp-23, Pro-51 to Trp-65.	H0521: 1 and H0543: 1.		

HHENO53	709078	2308	301 - 164	12060	Pro-5 to Lys-21.	H0543: 2		
HHENQ16	661841	2309	337 - 561	12061		H0543: 2		
HHENR11	966906	2310	596 - 832	12062	Val-15 to Lys-24.	H0069: 1 and H0543: 1.		
HHENR78	773537	2311	334 - 188	12063	Lys-1 to Arg-7, Ser-16 to Phe-21.	H0087: 1 and H0543: 1.		
HHENV38	657383	2312	3 - 386	12064	Arg-1 to Phe-20, Ser-46 to Pro-57, Lys-63 to Arg-75, Leu-77 to Ala-84, Arg-102 to Trp-117.	L0794: 4, L0803: 4, L0513: 2, H0637: 1, H0063: 1, L0761: 1, L0768: 1, L0809: 1, L0790: 1, L0777: 1 and H0543: 1.		
HHENZ86	670837	2313	81 - 269	12065	Cys-18 to Ser-26.	H0521: 1 and H0543: 1.		
HHEOF20	861457	2314	2 - 145	12066		H0543: 2		
HHEOF58	841978	2315	195 - 374	12067	Ser-15 to Gln-28, Ser-34 to Arg-41, Ser-47 to Phe-60.	H0543: 2 and H0444: 1.		
HHEOG17	662948	2316	2 - 205	12068	Gly-1 to Ser-9, Gly-43 to Gly-53.	H0264: 1, S0428: 1 and H0543: 1.		
HHEOG67	588154	2317	12 - 158	12069	Lys-7 to Pro-15, Leu-30 to Ala-37.	H0543: 2		
HHEOI18	677891	2318	3 - 395	12070	Glu-1 to Arg-8.	H0543: 2		
HHEOJ10	911814	2319	2 - 463	12071	Met-64 to Leu-75, Met-78 to Tyr-89.	H0543: 2		
HHEOL59	588168	2320	1 - 165	12072		H0543: 2		
HHEOX60	734311	2321	212 - 412	12073	Thr-11 to Pro-17, Gln-25 to Phe-31, Gly-35 to Leu-44.	H0543: 2		
HHEOZ17	793087	2322	13 - 153	12074		H0421: 1, H0521: 1 and H0543: 1.		
HHEPD46	718950	2323	246 - 437	12075	Arg-9 to Val-14, Asn-23 to Lys-30, Gly-47 to Trp-52.	H0063: 1, L0794: 1, H0445: 1 and H0543: 1.		
HHEPD73	966828	2324	3 - 290	12076	Pro-19 to Thr-35, Gly-87 to Trp-94.	H0543: 2 and L0657: 1.		
HHEPF31	858269	2325	70 - 333	12077	Arg-26 to Trp-32.	H0581: 1 and H0543: 1.		
HHEPG15	659664	2326	3 - 449	12078	Gly-40 to Ser-55, Arg-74 to Ser-82,	H0457: 1 and H0543: 1.		

					Ser-107 to Val-118, Lys-140 to Lys-145.			
HHEPK28	686489	2327	170 - 277	12079	Glu-1 to Lys-6.	H0445: 1 and H0543: 1.		
HHEPM73	683270	2328	103 - 204	12080	His-9 to Tyr-17.	H0543: 2, S0218: 1 and L0763: 1.		
HHEPN44	716494	2329	525 - 761	12081	Pro-9 to Pro-18, Val-32 to Asn-43.	H0637: 1, L0748: 1, H0445: 1 and H0543: 1.		
HHEPR14	869381	2330	376 - 612	12082		H0556: 1, L0749: 1 and H0543: 1.		
HHEPS91	493744	2331	446 - 270	12083		S0002: 2, H0457: 1, S0426: 1, L0438: 1 and H0543: 1.		
	934138	9567	545 - 826	19319				
HHEPZ10	963715	2332	169 - 2	12084		H0543: 2		
HHEQB17	918056	2333	209 - 370	12085		H0543: 2		
HHEQB47	841899	2334	364 - 477	12086	His-1 to Leu-9.	H0556: 1 and H0543: 1.		
HHEQG21	934680	2335	199 - 351	12087		H0543: 2		
HHEQG45	717303	2336	139 - 279	12088		H0543: 2		
HHEQG52	956214	2337	174 - 64	12089	Lys-1 to Gly-9, Asn-12 to Met-22.	H0543: 2		
HHEQG72	922619	2338	3 - 167	12090	Gly-30 to Asn-40.	H0543: 2		
HHEQG75	766960	2339	158 - 361	12091	Pro-48 to Pro-54.	H0543: 2		
HHEQG86	784752	2340	98 - 346	12092		H0543: 2		
HHEQH63	744596	2341	187 - 351	12093	Lys-8 to Ala-15.	H0543: 2		
HHEQI07	952416	2342	77 - 205	12094	Pro-37 to Lys-43.	H0543: 2		
HHEQI11	966293	2343	98 - 211	12095	Ser-12 to Asn-17.	S0116: 1, H0090: 1, L0748: 1, H0543: 1 and H0423: 1.		
HHEQI82	728596	2344	164 - 382	12096	Gly-41 to Gly-49.	H0306: 1 and H0543: 1.		
HHEQI89	786607	2345	23 - 172	12097		H0543: 2		
HHEQK01	871911	2346	64 - 249	12098		AR089: 7, AR061: 1 L0589: 1, H0542: 1 and H0543: 1.		
HHEQO36	707926	2347	37 - 186	12099		H0543: 2		
HHEQP38	709076	2348	158 - 313	12100	Pro-15 to His-24.	H0543: 2		
HHEQP83	780397	2349	170 - 352	12101	Arg-31 to Gly-38.	S0114: 1 and H0543: 1.		
HHEQQ47	699160	2350	119 - 244	12102	Thr-1 to Leu-8,	H0543: 2		

					Pro-23 to Cys-33.			
HHEQS17	662203	2351	226 - 513	12103	Pro-10 to Lys-19, Met-77 to Gln-82.	H0265: 1, S0134: 1 and H0543: 1.		
HHEQU09	755007	2352	271 - 465	12104		H0543: 2		
HHEQV03	923324	2353	252 - 425	12105	Gln-50 to Phe-58.	H0543: 2 and L0002: 1.		
HHEQV39	932851	2354	1 - 711	12106	Leu-7 to Phe-27, Gln-50 to Gln-57.	AR089: 3, AR061: 1 T0042: 1, H0543: 1 and H0422: 1.		
HHEQX60	915561	2355	2 - 400	12107	Ser-61 to Phe-67, Pro-85 to Gln-90.	H0543: 2		
HHEQY32	698633	2356	79 - 234	12108	Gly-19 to Arg-24, Ser-32 to Ala-41.	T0002: 1 and H0543: 1.		
HHERA17	858239	2357	30 - 269	12109	Pro-18 to Trp-27, Pro-48 to Ser-58, Ile-60 to Gln-77.	S0114: 1, H0650: 1, H0254: 1, H0255: 1, H0264: 1 and H0543: 1.		
HHERB03	933271	2358	226 - 432	12110	Pro-11 to Glu-16.	H0543: 3		
HHERB04	854112	2359	342 - 914	12111	Thr-30 to Leu-46, Leu-64 to Ser-73, Asp-107 to Thr-141, Ala-150 to Phe-162, Phe-165 to Ser-173, Ser-182 to Glu-191.	H0591: 1 and H0543: 1.	17	
HHERN11	966003	2360	2 - 118	12112	Arg-4 to Gly-16, Phe-24 to Asn-37.	H0543: 2		
HHERO39	858238	2361	171 - 368	12113	Arg-4 to Leu-10.	H0543: 2		
HHERO95	928142	2362	1038 - 1301	12114	Lys-8 to Val-14.	L0766: 5, L0759: 2, H0422: 2, H0650: 1, T0041: 1, L0794: 1, L0659: 1, L0779: 1, L0780: 1, H0543: 1 and H0423: 1.		
HHERQ04	925697	2363	168 - 302	12115	Lys-6 to Ser-11, Thr-38 to Lys-45.	H0543: 2		
HHERQ50	858049	2364	1 - 507	12116		H0090: 1, L0777: 1, L0731: 1, L0758: 1 and H0543: 1.		
HHERU77	934167	2365	213 - 350	12117	Pro-13 to Arg-21.	H0543: 2		
HHERV38	933142	2366	288 - 452	12118	Ser-5 to Asn-11,	H0543: 2, H0264: 1 and		

					Pro-37 to Asp-44.	S0426: 1.		
HHERX04	925700	2367	1 - 399	12119	Pro-5 to Gly-15.	H0543: 3		
HHESF07	952214	2368	365 - 601	12120	Gln-8 to Met-16, Glu-19 to Leu-28, Ser-35 to Phe-42, Lys-46 to Leu-51, Glu-54 to Thr-65, Lys-70 to Phe-76.	S0114: 1, L0766: 1, L0809: 1, L0749: 1, L0777: 1 and H0543: 1.		
HHESG02	918639	2369	98 - 328	12121	Gln-19 to Thr-37, Phe-46 to Phe-60.	H0543: 2		
HHESH33	893701	2370	214 - 495	12122	Gly-10 to Thr-17, Trp-39 to Gly-48, Ser-62 to Asp-73.	H0543: 3		
HHESI92	792431	2371	155 - 253	12123	Gln-9 to Lys-18.	H0402: 1, H0436: 1 and H0543: 1.		
HHESJ03	922998	2372	38 - 163	12124	His-14 to Ser-20.	H0637: 1 and H0543: 1.		
HHESK56	779164	2373	17 - 301	12125	Pro-10 to Phe-15.	H0543: 2		
HHESN02	918634	2374	243 - 341	12126		H0543: 2		
HHESO94	793390	2375	159 - 458	12127	Cys-36 to Val-41, Arg-50 to Ser-59.	H0543: 2		
HHESP87	858224	2376	1 - 276	12128		H0543: 2		
HHEST60	858220	2377	173 - 3	12129	Gln-30 to Lys-37, Ser-46 to Thr-57.	H0543: 2		
HHESU02	918668	2378	306 - 503	12130		H0543: 2		
HHESU03	923030	2379	419 - 685	12131		H0543: 2 and S0278: 1.		
HHESU54	926341	2380	230 - 409	12132	Ala-10 to Glu-20, Pro-46 to Ser-51.	H0543: 2		
HHESU85	783820	2381	4 - 336	12133	Lys-27 to Glu-104.	H0543: 2 and L0547: 1.		
HHESV46	935074	2382	241 - 450	12134	Lys-21 to Glu-28, Thr-39 to Leu-45.	S0053: 1, H0444: 1 and H0543: 1.		
HHETA53	858211	2383	87 - 368	12135	Gln-28 to Asn-36, His-55 to Lys-72, Leu-74 to Arg-81, Gly-88 to Pro-94.	S0052: 1 and H0543: 1.		
HHETB42	973127	2384	65 - 232	12136	Ile-49 to Lys-56.	H0543: 3		
HHETC50	927000	2385	36 - 242	12137	Asn-1 to Arg-6,	H0543: 2		

					Pro-46 to Lys-58.			
HHETD13	858218	2386	360 - 647	12138	Gln-63 to His-69, Met-76 to Arg-82.	H0543: 2		
HHETE34	974392	2387	426 - 731	12139	Leu-1 to Tyr-26, Arg-57 to Lys-63.	H0543: 3		
HHETF07	952218	2388	94 - 333	12140		H0543: 2		
HHETF94	793420	2389	84 - 437	12141	Arg-26 to Gly-32, Ala-50 to Met-65.	H0341: 1 and H0543: 1.		
HHETK07	848748	2390	130 - 339	12142	Ser-16 to Met-30, Lys-64 to Asp-70.	H0543: 2, H0556: 1 and L0604: 1.		
HHETM92	790879	2391	163 - 249	12143	Leu-19 to Arg-29.	H0543: 2		
HHETQ54	908567	2392	2 - 532	12144		AR061: 2, AR089: 1 H0521: 1 and H0543: 1.		
HHETR21	936252	2393	131 - 712	12145	Thr-45 to Thr-52, Thr-139 to Asp-145.	H0543: 2		
HHETR94	793434	2394	275 - 553	12146	Tyr-1 to Thr-7, Pro-13 to Thr-20, Gln-84 to Lys-89.	H0543: 3		
HHETS04	926997	2395	86 - 256	12147	Glu-9 to His-25.	H0445: 2, H0402: 1, H0318: 1, H0264: 1 and H0543: 1.		
HHETU20	858206	2396	1 - 165	12148	Ala-1 to Met-22.	H0543: 2		
HHETV35	784894	2397	222 - 130	12149		H0543: 2		
HHETX01	915284	2398	138 - 335	12150	Arg-1 to Lys-16, Gly-30 to Pro-38.	H0439: 1 and H0543: 1.		
HHETY79	774171	2399	102 - 287	12151		T0041: 1 and H0543: 1.		
HHEUA62	965709	2400	1 - 315	12152	Leu-13 to Met-20, Arg-27 to Leu-67.	H0543: 2, H0318: 1 and T0041: 1.		
HHEUC31	795268	2401	3 - 677	12153	Glu-26 to Pro-35, Glu-56 to Ser-62, Gln-67 to Val-73, Ser-77 to Thr-82, Ala-90 to Val-104, Thr-126 to Glu-134, Pro-205 to Pro-211.	AR089: 4, AR061: 2 H0543: 2 and L0596: 1.		
HHEUC84	788954	2402	183 - 338	12154		H0543: 2		
HHEUE01	915274	2403	22 - 186	12155	Tyr-16 to Tyr-21.	H0543: 2		

HHEUE86	784879	2404	3 - 158	12156	Pro-8 to Lys-25, Tyr-37 to Asp-42.	H0556: 1, H0445: 1 and H0543: 1.		
HHEUE89	786254	2405	2 - 340	12157		H0069: 1, L0748: 1 and H0543: 1.		
HHEUP02	918655	2406	212 - 376	12158	Pro-50 to Ser-55.	H0543: 2		
HHEUT33	952043	2407	72 - 263	12159	Ile-8 to Asn-14, Val-53 to Tyr-60.	H0543: 2		
HHEUY42	918029	2408	7 - 105	12160		H0543: 2		
HHEVI06	933921	2409	24 - 176	12161		L0662: 1, H0576: 1 and H0543: 1.		
HHEVL35	965644	2410	1 - 105	12162		H0543: 2		
HHEVN07	952041	2411	94 - 315	12163		H0543: 2		
HHEVR07	952070	2412	60 - 305	12164	Pro-24 to Gln-32.	S0114: 1 and H0543: 1.		
HHEVS63	973213	2413	418 - 576	12165	Asp-1 to Lys-8.	H0543: 3		
HHEVS95	957950	2414	204 - 407	12166	Ser-32 to Tyr-38, Pro-56 to Ser-61.	H0543: 2		
HHEVV64	974520	2415	267 - 506	12167	Glu-44 to Thr-63.	H0318: 1, H0063: 1, H0679: 1 and H0543: 1.		
HHEWE44	973219	2416	170 - 454	12168	Thr-14 to Glu-24, Pro-33 to Gly-39.	H0543: 3		
HHEWF40	973234	2417	618 - 788	12169		H0543: 3		
HHEWL08	957946	2418	220 - 26	12170	Gln-1 to Lys-9, Cys-28 to Pro-37, Asp-39 to Val-47.	H0543: 2		
HHEWT52	858116	2419	139 - 309	12171		S0114: 1 and H0543: 1.		
HHEWU52	935243	2420	3 - 221	12172		H0543: 2		
HHEWU93	973141	2421	201 - 392	12173	His-7 to Ser-13, Tyr-33 to Phe-38.	H0543: 3		
HHEWY63	858114	2422	97 - 372	12174	Gln-49 to Asn-57.	H0543: 2		
HHEXD07	951983	2423	1 - 156	12175		H0543: 2 and L0599: 1.		
HHEXK51	932911	2424	172 - 26	12176		H0158: 1, S0426: 1 and H0543: 1.		
HHEXX06	933858	2425	1 - 240	12177	Ala-50 to Tyr-56.	H0265: 1 and H0543: 1.		
HHEXY05	920532	2426	69 - 401	12178	Cys-31 to Ile-46.	H0305: 3 and H0543: 2.		
HHEYG35	878225	2427	130 - 426	12179	Lys-59 to Ser-64,	S0002: 1 and H0543: 1.		

					Pro-76 to Ser-82.			
HHEYK30	961960	2428	2 - 493	12180	Ala-9 to Arg-15, Cys-17 to His-26, Gly-34 to Leu-43, Glu-58 to Lys-65, Gln-70 to Met-78, Val-147 to Asp-154.	H0486: 1, L0527: 1, H0521: 1 and H0543: 1.		
HHEYK73	847483	2429	246 - 449	12181	Gln-2 to Asp-9, Arg-22 to Tyr-28, His-53 to Asn-59.	H0543: 2, H0069: 1 and H0635: 1.		
HHEYP70	861923	2430	13 - 441	12182	Glu-1 to Gly-6, Leu-30 to Pro-41, Gly-100 to Gly-107, Lys-124 to Asn-131.	H0543: 2		
HHEYQ78	963321	2431	61 - 246	12183	Ser-8 to Lys-15, Glu-30 to Thr-36.	H0581: 1 and H0543: 1.	8	
HHEYV03	922104	2432	238 - 390	12184	Ser-1 to Phe-6.	H0625: 1, L0740: 1 and H0543: 1.		
HHEYZ12	968939	2433	1 - 150	12185	Gln-45 to Asp-50.	H0543: 2		
HHEZA83	973236	2434	313 - 555	12186	Ile-1 to Gly-6, Pro-44 to Gln-52.	H0543: 3		
HHEZJ38	860048	2435	331 - 471	12187	Val-1 to Asp-7.	L0455: 1, S0053: 1 and H0543: 1.		
HHEZP45	952047	2436	47 - 148	12188	Met-1 to Arg-6.	H0543: 2		
HHEZP54	952367	2437	57 - 236	12189		S0114: 1, H0521: 1, H0444: 1 and H0543: 1.		
HHFHP14	960049	2438	2 - 208	12190	Arg-2 to Gln-8.	H0584: 21, H0167: 7 and H0050: 1.		
HILAA18	657314	2439	200 - 322	12191	Ser-2 to Arg-7.	T0002: 1, H0486: 1 and H0445: 1.		
HILBD61	504130	2440	102 - 377	12192	Lys-1 to Gly-7.	H0090: 2 and T0002: 1.		
HILCD94	887182	2441	419 - 595	12193	Met-1 to Arg-11, Asn-29 to Lys-34.	AR051: 42, AR054: 32, AR050: 31 L0766: 3, L0804: 2, T0002: 1, H0580: 1, L0662: 1, L0803: 1, L0805: 1, L0789:		

						1, L0749: 1 and L0779: 1.		
HJAAH06	960647	2442	2 - 370	12194	Arg-1 to Asn-10, Pro-17 to Lys-22, Thr-30 to Thr-57, Val-63 to Leu-69, Ser-79 to Arg-100.	H0090: 1 and T0041: 1.		
HJAAM73	530476	2443	155 - 421	12195	Gln-1 to Ser-19, Glu-31 to Thr-36.	H0354: 1 and T0041: 1.		
HJAAT23	530472	2444	70 - 450	12196		L0749: 2, S0116: 1, L0717: 1, T0041: 1 and L0662: 1.		
HJAAU52	530473	2445	2 - 301	12197		H0306: 1, T0041: 1 and L0589: 1.	19q13.3	113900, 126340, 126391, 130410, 134790, 138570, 160900, 173850, 258501, 600040, 602225, 602225
HJAAU57	661275	2446	1 - 165	12198		T0041: 2		
HJAAV29	669278	2447	3 - 299	12199		S0218: 1, H0264: 1 and T0041: 1.		
HJAAV82	738993	2448	523 - 681	12200		H0591: 2, T0041: 1, L0745: 1 and L0777: 1.		
HJAAW39	530468	2449	114 - 272	12201		S0114: 1 and T0041: 1.		
HJAAW48	530641	2450	2 - 244	12202		H0063: 1 and T0041: 1.		
HJABB37	530467	2451	3 - 434	12203	Lys-5 to Asn-15, Pro-33 to Lys-38.	H0264: 1 and T0041: 1.		
HJABC27	669059	2452	2 - 253	12204	Pro-17 to Ile-22, Ile-39 to Arg-45.	S0134: 1 and T0041: 1.		
HJABH14	530463	2453	145 - 324	12205		T0041: 2		
HJABJ06	954589	2454	1 - 186	12206		H0264: 2 and T0041: 1.		
HJABP04	925557	2455	305 - 436	12207	Ser-6 to Gly-11, Asp-23 to Thr-32.	T0041: 1 and H0423: 1.		
HJABV44	871824	2456	325 - 537	12208	Lys-2 to His-10.	S0134: 1 and T0041: 1.		
HJABV57	839528	2457	145 - 2	12209	Lys-28 to Gly-36, Arg-43 to Arg-48.	T0041: 1 and S0002: 1.	14q24.3	104311, 109150, 182600, 245200, 601208
HJABW28	958721	2458	20 - 238	12210		H0305: 7, L0748: 2, H0583:		

						1, H0589: 1, L0471: 1, T0041: 1, H0134: 1 and L0589: 1.		
HJABX33	966611	2459	214 - 438	12211		T0041: 1, H0521: 1 and L0600: 1.		
HJABY68	861548	2460	292 - 495	12212	Pro-4 to Lys-12, Arg-41 to Pro-57.	T0041: 2		
HJABZ52	857454	2461	37 - 276	12213	Arg-35 to Ser-41, Gly-59 to Thr-64, Cys-72 to Phe-77.	H0650: 1, T0041: 1, L0766: 1, L0740: 1 and L0777: 1.		
HJACB80	746411	2462	123 - 323	12214	Glu-25 to Arg-30.	L0622: 1, S0182: 1, T0041: 1, L0789: 1 and L0749: 1.		
HJACC59	534867	2463	19 - 321	12215		T0041: 2		
HJACC67	518222	2464	18 - 284	12216		T0041: 2		
HJACE47	589114	2465	6 - 152	12217	Cys-5 to Gln-10.	H0265: 1, S0134: 1, H0486: 1 and T0041: 1.		
HJACE79	666768	2466	2 - 256	12218	Lys-6 to Leu-11.	T0041: 2		
HJACF14	659329	2467	225 - 389	12219	Tyr-1 to His-6.	S0116: 1 and T0041: 1.		
HJACF47	507156	2468	109 - 399	12220		H0341: 1, T0041: 1, L0523: 1 and L0747: 1.		
HJACH86	784634	2469	3 - 266	12221	Arg-1 to Gly-10, Ala-20 to Cys-27.	S0218: 1, H0580: 1 and T0041: 1.		
HJADD60	708664	2470	97 - 216	12222		L0766: 4, S0114: 1, T0041: 1, S0002: 1 and S0426: 1.		
HJBAB01	961088	2471	51 - 305	12223	Arg-28 to Thr-33.	T0042: 1 and H0543: 1.		
HJBAD34	508225	2472	51 - 134	12224	Pro-1 to Asn-12.	T0042: 2		
HJBAG75	523069	2473	1 - 279	12225	Ala-19 to Ser-25, Glu-31 to Thr-38, Gly-47 to Gly-52, Phe-58 to Ser-72, Pro-75 to Ala-86.	T0042: 2		
HJBAT26	522697	2474	19 - 150	12226		T0042: 2		
HJBAX43	929793	2475	73 - 288	12227	Asp-18 to Pro-26.	H0341: 3 and T0042: 1.		
HJBBD13	765075	2476	2 - 211	12228		AR061: 88, AR089: 72, AR051: 63, AR050: 45, AR054: 28		

						H0486: 1 and T0042: 1.		
HJBCP53	574259	2477	53 - 316	12229		T0042: 2		
HJBDB28	839067	2478	21 - 212	12230	Pro-6 to Asp-15.	T0042: 1 and S0426: 1.		
HJBDG57	750669	2479	81 - 455	12231	Leu-13 to Arg-19, Ala-22 to Gln-29, Pro-38 to Arg-43, Gly-68 to Arg-76, Arg-91 to Trp-100, Thr-108 to Tyr-120.	T0042: 2	3q21	106165, 117700, 117700, 150210, 169600, 180380, 180380, 180380, 190000, 203500, 232050, 276902, 600882, 601199, 601199, 601199, 601471, 601682
HJBDL14	960109	2480	89 - 361	12232	Ser-4 to Pro-16, Gly-23 to Ala-32.	H0305: 3, H0581: 1, T0042: 1, L0438: 1 and L0756: 1.		
HJKSB86	523007	2481	1 - 138	12233		H0202: 2 and H0203: 1.		
HJPAH35	509162	2482	203 - 301	12234		H0083: 2		
HJPAT51	730875	2483	179 - 271	12235	Lys-1 to Trp-13.	H0306: 1 and H0083: 1.		
HKBAC12	857298	2484	435 - 713	12236	Gly-28 to Thr-36.	H0264: 1 and H0625: 1.		
HKBAQ43	934251	2485	1 - 57	12237		H0625: 2		
HKBAT27	963724	2486	2 - 169	12238		H0580: 1, H0581: 1 and H0625: 1.		
HLADA25	791845	2487	13 - 219	12239		H0608: 4 and H0436: 4.		
HLADA89	786490	2488	1 - 483	12240	Pro-7 to Gln-13, Leu-30 to Asp-35, Pro-47 to Cys-64, Ser-86 to Asn-98.	H0638: 1, H0608: 1, H0611: 1 and L0362: 1.		
HLCDB78	760896	2489	2 - 151	12241	Gly-29 to Arg-34.	L0766: 2, H0305: 1 and H0607: 1.		
HLEAO21	531287	2490	2 - 109	12242	Asp-31 to Glu-36.	H0073: 1 and H0521: 1.		
HLEDB91	787578	2491	2 - 121	12243	Thr-16 to Ile-22.	H0609: 1 and H0610: 1.		
HLKDB22	766876	2492	614 - 850	12244	Asn-1 to Ser-8.	H0611: 2, L0749: 2, L0777: 2, L0764: 1 and H0522: 1.		
HLKDC49	722400	2493	412 - 582	12245	Glu-10 to Ile-20.	L0731: 2, H0611: 1, H0090: 1, L0659: 1, L0666: 1, L0752: 1 and H0543: 1.		
HLLCD11	967337	2494	2 - 334	12246		S0212: 1 and H0354: 1.		

HLMAC43	799766	2495	140 - 382	12247	Leu-10 to Pro-15, Arg-43 to Pro-50.	H0254: 3 and H0255: 2.		
HLMAE45	783886	2496	20 - 193	12248	Arg-12 to Ser-21.	H0556: 1, H0254: 1 and H0255: 1.		
HLMAE62	796676	2497	71 - 175	12249	Ser-1 to Val-7, Gly-17 to Gly-33.	H0254: 2 and H0255: 1.		
HLMAE83	530107	2498	2 - 238	12250	Cys-11 to Asp-20, Lys-62 to Ser-68.	H0254: 1 and H0255: 1.		
HLMAH45	954125	2499	59 - 289	12251	Gln-1 to Asn-6.	H0254: 2, L0754: 2, L0755: 2, L0761: 1 and L0776: 1.		
HLMAH60	856858	2500	2 - 121	12252	Lys-1 to Arg-12, Pro-29 to Leu-38.	H0254: 1 and H0255: 1.		
HLMAJ54	811183	2501	97 - 348	12253	Phe-9 to Gly-16.	H0254: 1 and H0255: 1.		
HLMAJ84	615300	2502	11 - 256	12254	Arg-6 to Ser-11.	H0254: 1 and H0421: 1.		
HLMAN25	677519	2503	101 - 166	12255		H0254: 1 and H0255: 1.		
HLMAU11	954571	2504	96 - 299	12256	Pro-10 to Trp-17.	H0254: 2		
HLMAU43	856884	2505	3 - 149	12257		H0254: 2		
HLMAU70	732665	2506	24 - 299	12258		H0254: 1 and H0255: 1.		
HLMAV62	671905	2507	48 - 140	12259	Thr-8 to Cys-13.	H0255: 2 and H0254: 1.		
HLMAZ06	960557	2508	151 - 312	12260	Ser-36 to His-45.	L0766: 2, H0254: 1, H0402: 1 and L0748: 1.		
HLMAZ14	932679	2509	119 - 262	12261	Lys-1 to Gly-14, Cys-17 to Phe-23, Glu-29 to Arg-46.	H0254: 2		
HLMAZ72	821500	2510	428 - 604	12262	Leu-20 to Gly-25, Gln-47 to Ser-59.	H0254: 1 and H0179: 1.		
HLMAZ91	920216	2511	129 - 251	12263	Gln-2 to Lys-8.	H0254: 1 and H0255: 1.		
HLMBB25	792549,	2512	1 - 243	12264	Pro-49 to Lys-54, Arg-76 to Arg-81.	H0255: 2		
HLMBB43	530611	2513	3 - 212	12265	Glu-20 to Ser-34.	H0255: 2		
HLMBB56	968209	2514	1 - 192	12266	Gly-1 to Cys-7, Pro-29 to Asn-36, Gln-58 to Arg-64.	H0255: 6		
HLMBB77	799744	2515	206 - 343	12267		H0255: 2 and H0254: 1.		
HLMBB80	950730	2516	217 - 369	12268		H0255: 3		
HLMBF68	753614	2517	142 - 372	12269		S0114: 1 and H0255: 1.		

HLMBQ04	615621	2518	370 - 242	12270	Arg-8 to Glu-14, Ile-31 to Arg-43.	H0255: 1 and H0445: 1.		
HLMBQ77	954969	2519	168 - 533	12271	Pro-26 to Pro-40.	H0457: 2, H0255: 1, H0580: 1, S0002: 1 and L0766: 1.		
HLMBU64	577608	2520	1 - 240	12272	Ala-10 to Gly-16, Tyr-53 to Ile-61.	H0255: 2		
HLMBU82	799755	2521	2 - 202	12273	Gly-1 to Cys-7, Leu-45 to Asn-51, Ser-53 to Pro-59.	H0255: 4		
HLMBV11	967669	2522	22 - 315	12274	Ser-8 to Arg-17, Arg-49 to Trp-59, Leu-67 to Gly-85.	H0255: 1 and H0422: 1.		
HLMBV14	682023	2523	130 - 366	12275	Gly-31 to Arg-36, Ser-50 to Tyr-58.	H0255: 2		
HLMBV24	825595	2524	4 - 180	12276	Glu-1 to Ser-6.	H0255: 3		
HLMBV72	688069	2525	182 - 307	12277		H0255: 2		
HLMBW11	950728	2526	33 - 782	12278	Arg-41 to Phe-47, Glu-51 to Gly-56, Arg-64 to Asn-73, Leu-86 to Lys-96, Pro-98 to Val-111, Thr-119 to Met-124, Gln-126 to Trp-166, Cys-168 to Thr-177, Ser-214 to Leu-220, Gln-229 to Trp-244.	H0255: 2 and L0766: 2.		
HLMBX06	954576	2527	95 - 316	12279	Pro-62 to Ser-67.	H0265: 2, H0556: 2, H0255: 2 and H0423: 1.		
HLMBX19	879667	2528	1 - 246	12280		H0255: 2		
HLMBY16	531053	2529	1 - 156	12281	Lys-1 to Gly-11, Ser-17 to Ala-26.	H0255: 2		
HLMBZ31	967640	2530	7 - 123	12282	Pro-6 to Gly-14.	H0255: 2		
HLMBZ47	577605	2531	79 - 201	12283	Glu-16 to Met-21.	H0255: 1 and H0402: 1.		
HLMBZ73	531401	2532	28 - 222	12284		H0255: 2		
HLMCA13	790952	2533	118 - 411	12285	Thr-32 to Lys-37, Thr-52 to His-60.	H0254: 1, S0216: 1 and L0439: 1.		

HLMCA22	529185	2534	59 - 205	12286		H0254: 2		
HLMCJ32	799767	2535	183 - 350	12287		H0254: 3 and H0255: 2.		
HLMCJ64	739397	2536	208 - 321	12288	Glu-21 to Asn-37.	H0254: 1 and H0255: 1.		
HLMCJ66	707231	2537	1 - 96	12289		H0254: 2		
HLMCK45	698342	2538	84 - 281	12290	Gly-3 to Glu-9.	H0254: 1, H0255: 1 and H0271: 1.		
HLMCL50	921041	2539	14 - 193	12291	Lys-21 to Lys-29.	H0254: 2		
HLMCL93	799699	2540	3 - 371	12292	Trp-8 to Pro-14, Thr-85 to Gly-91.	H0254: 2, H0556: 1, S0116: 1, H0255: 1 and L0604: 1.		
HLMCT06	954615	2541	3 - 131	12293		H0254: 2 and H0255: 2.		
HLMCT15	507212	2542	79 - 258	12294	His-50 to Lys-55.	H0254: 2		
HLMCT24	921543	2543	59 - 217	12295	His-33 to Arg-41.	H0254: 3 and H0255: 1.		
HLMCT79	916590	2544	64 - 180	12296	Arg-16 to Glu-25.	H0254: 1 and H0255: 1.		
HLMCT93	888976	2545	129 - 290	12297	Ser-44 to Gln-49.	AR051: 20, AR050: 19, AR054: 10 H0254: 1 and H0255: 1.		
HLMDE76	529184	2546	5 - 106	12298		H0254: 2		
HLMDF04	694910	2547	2 - 67	12299		H0254: 2		
HLMDF14	799739	2548	201 - 383	12300		H0255: 2 and H0254: 1.		
HLMDF52	571415	2549	54 - 182	12301	Glu-17 to Pro-26.	H0254: 1 and H0255: 1.		
HLMDH54	527128	2550	353 - 475	12302	Val-33 to Ser-40.	H0254: 2, S0114: 1 and H0422: 1.		
HLMDH78	532741	2551	1 - 261	12303		H0254: 2	14q11.2	182600, 186880, 190195, 190195, 222700, 600243, 602279, 602279
HLMDJ37	577239	2552	60 - 365	12304		H0254: 1 and H0255: 1.		
HLMDJ48	720893	2553	2 - 205	12305	His-6 to Gly-16, Phe-23 to Leu-38, Gly-56 to Ser-64.	H0254: 1 and H0255: 1.		
HLMDN83	799742	2554	23 - 352	12306	Pro-9 to Trp-15, Lys-63 to Tyr-74.	H0255: 2 and H0254: 1.		
HLMDO02	920859	2555	3 - 149	12307	Glu-9 to Lys-15, Glu-27 to Lys-33, Ser-38 to His-43.	H0254: 2 and H0255: 1.		
HLMDO18	527896	2556	2 - 148	12308	Gly-17 to Gly-29,	H0254: 2		

					Arg-41 to Gln-49.			
HLMDO61	584982	2557	20 - 103	12309	Lys-1 to Asn-6.	H0254: 2		
HLMDO65	742749	2558	3 - 419	12310	His-1 to Thr-6, Phe-19 to Arg-25, Pro-44 to Leu-54, Lys-57 to Asn-64.	H0254: 1 and H0255: 1.		
HLMDP35	535500	2559	2 - 259	12311		H0254: 2		
HLMDQ37	531232	2560	2 - 121	12312		H0254: 2		
HLMDQ40	531234	2561	3 - 200	12313	Pro-4 to Ser-16, Gln-59 to Gln-64.	H0254: 1 and H0255: 1.		
HLMDQ60	920837	2562	168 - 380	12314	Arg-29 to Tyr-34.	H0254: 2 and H0255: 1.		
HLMDR16	530103	2563	2 - 127	12315	Ala-12 to Val-17.	H0254: 2		
HLMDR33	959707	2564	235 - 429	12316		H0255: 3 and H0254: 2.		
HLMDR70	531235	2565	17 - 106	12317		H0254: 2		
HLMDT17	531231	2566	5 - 145	12318		H0254: 2		
HLMDU04	571393	2567	3 - 170	12319	Gly-10 to His-21.	H0254: 1 and H0255: 1.		
HLMDU07	930471	2568	103 - 297	12320	Gln-52 to Tyr-62.	H0254: 1, H0255: 1 and L0794: 1.		
HLMDU17	528040	2569	3 - 233	12321	Glu-17 to Pro-26.	H0254: 2		
HLMDU43	575607	2570	2 - 373	12322		L0769: 3, S0052: 2, H0254: 1, H0255: 1, S0002: 1, L0639: 1, L0761: 1, L0800: 1, L0641: 1 and L0794: 1.		
HLMDU54	856877	2571	112 - 324	12323	Pro-18 to Arg-46.	H0254: 1 and H0255: 1.		
HLMDU71	531228	2572	1 - 132	12324		AR089: 2, AR061: 1 H0254: 2		
HLMDU96	799729	2573	99 - 269	12325	Val-6 to Pro-11.	H0254: 2 and H0255: 1.		
HLMDV96	934543	2574	600 - 788	12326	Ser-33 to Cys-39.	S0216: 2, S0114: 1, H0254: 1, H0255: 1, H0635: 1, H0271: 1, L0748: 1 and H0423: 1.		
HLMDW28	531230	2575	253 - 29	12327		H0254: 2		
HLMDW58	799749	2576	20 - 295	12328	Cys-16 to Lys-23.	H0254: 3		
HLMDX46	523771	2577	85 - 210	12329	Thr-14 to Val-25, Lys-31 to Thr-42.	H0254: 2		
HLMDX59	739523	2578	122 - 418	12330		H0254: 1 and H0305: 1.		

HLMDX71	799758	2579	3 - 215	12331	Gln-1 to Leu-25, Ala-66 to Trp-71.	H0254: 2 and H0255: 2.		
HLMDY24	531219	2580	174 - 422	12332	Gly-3 to Thr-11, Gln-14 to His-20, Glu-46 to Ser-57.	H0254: 2		
HLMDY48	666518	2581	1 - 132	12333	Gly-1 to Ala-7, Phe-9 to Thr-15.	H0254: 1 and H0255: 1.		
HLMDY56	518410	2582	2 - 106	12334		H0254: 2		
HLMFA56	730947	2583	35 - 217	12335		H0255: 2		
HLMFA72	531359	2584	43 - 267	12336		H0255: 2		
HLMFB58	577643	2585	87 - 242	12337	Asp-1 to Ser-10.	H0255: 2		
HLMFD75	799682	2586	2 - 307	12338	Ser-4 to Ser-12.	H0264: 3 and H0255: 1.		
HLMFG58	573130	2587	357 - 169	12339	Leu-1 to Glu-7.	H0255: 1 and S0052: 1.		
HLMFG66	676040	2588	3 - 389	12340	His-1 to Leu-8, Gln-54 to Ala-61, Gln-91 to Leu-100.	H0255: 2		
HLMFH74	671941	2589	156 - 329	12341	Ile-11 to Arg-17.	H0255: 2		
HLMFI89	526929	2590	2 - 184	12342	Lys-15 to Arg-20.	H0255: 2		
HLMFK45	531222	2591	112 - 252	12343		H0254: 1 and H0255: 1.		
HLMFK63	888660	2592	1 - 588	12344	Arg-8 to Gly-17.	AR051: 139, AR050: 138, AR054: 114 H0255: 3		
HLMFK70	856861	2593	67 - 201	12345	Ser-23 to Trp-31.	H0254: 1 and H0255: 1.		
HLMFK92	571369	2594	143 - 373	12346	Glu-1 to Ala-6.	H0255: 2		
HLMFL71	526928	2595	113 - 367	12347		H0255: 2		
HLMFN24	781780	2596	3 - 326	12348		H0254: 1 and H0255: 1.		
HLMFN68	799751	2597	2 - 226	12349		H0255: 2 and H0254: 1.		
HLMFR49	842045	2598	33 - 179	12350		H0255: 2		
HLMFR72	799709	2599	3 - 215	12351		H0255: 3, L0745: 2 and L0383: 1.		
HLMFU09	909666	2600	22 - 216	12352	Gly-18 to Arg-23.	H0625: 2, H0254: 1, H0255: 1, H0576: 1 and L0749: 1.		
HLMFU13	657283	2601	87 - 209	12353	Lys-29 to Leu-40.	H0255: 2		
HLMFU39	856872	2602	143 - 340	12354	Gln-8 to Val-13.	L0439: 2, H0255: 1, L0021: 1, H0318: 1, L0655: 1,		

						S0428: 1, L0352: 1 and H0423: 1.		
HLMFU52	727197	2603	2 - 331	12355	Pro-47 to His-53.	H0255: 2		
HLMFU90	699667	2604	15 - 200	12356	Asn-29 to Thr-34.	H0254: 1 and H0255: 1.		
HLMFW19	534799	2605	3 - 197	12357	Leu-12 to Arg-17.	H0254: 1 and H0255: 1.		
HLMGK40	531355	2606	163 - 351	12358	Asn-44 to Arg-51.	H0254: 1 and H0255: 1.		
HLMGK50	927675	2607	36 - 233	12359		H0254: 1, H0255: 1 and L0766: 1.		
HLMGP66	799725	2608	105 - 302	12360		H0255: 3		
HLMGP96	531225	2609	17 - 160	12361		H0254: 1 and H0255: 1.		
HLMGY13	921457	2610	163 - 294	12362		H0255: 2		
HLMGZ09	625638	2611	162 - 302	12363	His-15 to Arg-21.	H0255: 2		
HLMGZ33	805813	2612	125 - 232	12364	Gly-13 to Thr-26.	H0254: 2, H0255: 2 and L0766: 1.		
HLMHD65	799736	2613	3 - 149	12365		H0254: 2 and H0255: 1.		
HLMHG83	799770	2614	68 - 244	12366	Ser-6 to Glu-14.	H0255: 6		
HLMHG84	572412	2615	99 - 1	12367		H0254: 1 and H0255: 1.		
HLMHH39	823450	2616	1 - 354	12368	Pro-7 to His-14.	H0255: 2 and H0271: 1.		
HLMHH40	878117	2617	48 - 338	12369		H0255: 2		
HLMHH57	714813	2618	3 - 299	12370	Thr-12 to Pro-17, Arg-24 to Asp-30, Gly-53 to Gly-62.	H0255: 2 and L0744: 1.		
HLMHK16	571414	2619	3 - 329	12371		H0254: 1 and H0255: 1.		
HLMHK58	799782	2620	208 - 450	12372		H0255: 3 and H0254: 1.		
HLMHK61	856848	2621	1 - 255	12373	Ala-23 to Gly-38, Ser-59 to Gly-65.	H0254: 1 and H0255: 1.		
HLMHK62	579101	2622	57 - 188	12374	Ala-5 to Pro-11.	H0255: 2		
HLMHL60	778481	2623	62 - 187	12375		H0254: 1 and H0255: 1.		
HLMHM63	578838	2624	35 - 175	12376		H0255: 2		
HLMHN21	516580	2625	141 - 416	12377		H0063: 2 and H0255: 1.		
HLMHN27	856846	2626	2 - 202	12378	Val-17 to Gly-24.	H0255: 1 and S0053: 1.		
HLMHN31	925730	2627	103 - 300	12379	Ser-16 to Asn-26.	L0766: 3, L0599: 2, H0657: 1, H0656: 1, H0255: 1, H0318: 1, L0779: 1, H0445: 1 and H0422: 1.		

HLMHN37	723081	2628	2 - 238	12380		H0255: 2 and H0254: 1.		
HLMHN45	668906	2629	1 - 270	12381	Ser-38 to Gly-49.	H0255: 2		
HLMHO11	964945	2630	62 - 139	12382	His-17 to Trp-25.	H0254: 1 and H0255: 1.		
HLMHO21	799772	2631	17 - 238	12383	Pro-2 to Tyr-11, Pro-13 to Arg-19.	H0254: 2 and H0255: 2.		
HLMHO33	799756	2632	116 - 325	12384		H0255: 3 and H0254: 1.		
HLMHP67	967636	2633	11 - 355	12385	Ala-6 to Pro-12, Asp-56 to Ser-61.	H0255: 2 and H0254: 1.		
HLMHP74	953956	2634	93 - 293	12386	Pro-18 to Val-37, Arg-44 to Gly-51.	H0255: 2		
HLMHR25	920711	2635	51 - 311	12387	Ser-1 to Pro-12, Ser-28 to Tyr-38.	H0255: 2		
HLMHR55	825530	2636	1 - 216	12388		H0255: 1 and H0264: 1.		
HLMHS31	752375	2637	140 - 322	12389		H0255: 2 and H0254: 1.		
HLMHS41	574741	2638	3 - 143	12390		H0255: 2		
HLMHS66	574742	2639	267 - 404	12391		L0777: 4, H0255: 2, S0114: 1, L0803: 1, L0780: 1 and L0759: 1.		
HLMHT67	579048	2640	33 - 149	12392	Ala-12 to Arg-21.	H0255: 2		
HLMHT94	531054	2641	156 - 284	12393		H0254: 1 and H0255: 1.		
HLMHU80	799723	2642	52 - 294	12394		H0255: 3		
HLMHW31	536579	2643	90 - 239	12395	Ser-21 to Val-30.	H0254: 1 and H0255: 1.		
HLMHY64	866458	2644	2 - 244	12396	Gly-3 to Lys-8.	AR054: 41, AR051: 38, AR050: 33 H0305: 3 and H0255: 2.		
	971675	9568	3 - 287	19320				
HLMHZ14	799724	2645	51 - 146	12397	Leu-6 to Pro-24.	H0255: 2 and H0254: 1.		
HLMHZ59	530071	2646	2 - 121	12398		H0254: 1 and H0255: 1.		
HLMIC94	710391	2647	28 - 234	12399	Thr-23 to Phe-29, Glu-59 to Gly-67.	H0254: 2 and H0255: 1.		
HLMIE70	578795	2648	1 - 240	12400	Asn-12 to Arg-21, Gly-54 to Arg-67, Ser-72 to Gly-79.	H0255: 2		
HLMIF22	572424	2649	13 - 120	12401		H0254: 1 and H0255: 1.		
HLMIG11	967291	2650	2 - 166	12402	Asn-1 to Ser-13.	H0255: 2		

HLMIG50	856845	2651	52 - 447	12403	Val-1 to His-14, Arg-16 to Asn-26.	H0255: 2 and L0523: 1.		
HLMIG72	799747	2652	201 - 329	12404	Glu-15 to Asp-20.	H0254: 2 and H0255: 1.		
HLMIH10	964890	2653	218 - 400	12405		H0255: 3		
HLMIH44	883871	2654	178 - 396	12406		H0255: 3 and L0589: 1.		
HLMIL62	799713	2655	253 - 414	12407	Gly-31 to Thr-36.	H0255: 3		
HLMIM73	576692	2656	19 - 174	12408		H0255: 2, S0218: 1 and H0402: 1.		
HLMIO47	531224	2657	34 - 138	12409		H0254: 1 and H0255: 1.		
HLMIP23	686670	2658	14 - 391	12410		L0748: 4, H0254: 1, H0255: 1, L0787: 1 and L0741: 1.	17	
HLMIQ11	921009	2659	471 - 785	12411	Ala-34 to Asp-42, Arg-44 to Trp-50, Arg-57 to Arg-64.	L0766: 6, H0402: 3, H0305: 2, H0542: 2, H0254: 1, H0255: 1, H0306: 1, H0581: 1, S0052: 1, L0754: 1, L0749: 1, H0444: 1, H0445: 1 and H0543: 1.		
HLMIQ72	715650	2660	39 - 269	12412	Pro-32 to Ser-40.	H0255: 2, H0254: 1 and H0187: 1.		
HLMIQ73	764522	2661	229 - 399	12413		H0254: 1 and H0255: 1.		
HLMIQ93	576657	2662	1 - 186	12414	Arg-31 to Gly-40.	H0255: 2		
HLMIR23	916938	2663	22 - 357	12415		H0255: 3 and H0254: 1.		
HLMIR40	578756	2664	51 - 227	12416	Glu-48 to Gln-53.	H0255: 2		
HLMIS03	924651	2665	16 - 192	12417	Ser-14 to Ala-20.	H0254: 2 and H0255: 1.		
HLMIS16	572430	2666	131 - 268	12418		H0254: 1 and H0255: 1.		
HLMIS64	572509	2667	77 - 193	12419		H0254: 1 and H0255: 1.		
HLMIS77	971141	2668	6 - 167	12420		H0255: 2		
HLMIS85	578751	2669	165 - 251	12421		H0255: 2		
HLMIS89	572506	2670	2 - 163	12422	Pro-45 to Ile-54.	H0254: 1 and H0255: 1.		
HLMIT37	799711	2671	233 - 60	12423		H0255: 3		
HLMIT43	799705	2672	99 - 308	12424	Gln-2 to Leu-19.	H0254: 2, L0755: 2, H0255: 1 and S0052: 1.		
HLMIT76	856860	2673	235 - 372	12425	Arg-2 to Gln-9.	H0255: 2, H0254: 1 and L0748: 1.		
HLMIV09	799740	2674	57 - 404	12426	Gln-1 to Cys-12,	H0255: 2 and H0254: 1.		

					Gln-27 to Phe-51, Gly-69 to Arg-76.			
HLMIW07	871698	2675	292 - 122	12427		H0255: 3		
HLMIW89	799753	2676	1 - 201	12428	Gly-1 to Gln-7.	H0255: 2 and H0254: 1.		
HLMIW90	920464	2677	144 - 323	12429		H0255: 3 and H0254: 1.		
HLMIX61	727730	2678	114 - 389	12430	Asp-13 to Gln-18.	S0114: 1, H0255: 1 and L0744: 1.		
HLMIX95	960056	2679	59 - 265	12431	Ile-7 to Gln-13, Gln-30 to Asn-35.	H0254: 1, H0255: 1, L0769: 1, L0439: 1 and L0777: 1.		
HLMIY56	571401	2680	76 - 252	12432		H0254: 1 and H0255: 1.		
HLMIZ02	920426	2681	3 - 203	12433	Arg-1 to Ala-6, Pro-11 to Glu-19, Cys-58 to Pro-64.	H0254: 2 and H0255: 2.		
HLMIZ25	825087	2682	1 - 135	12434	His-10 to Trp-21, Met-23 to Ser-29, Gly-36 to Ser-41.	S0212: 1, H0254: 1 and H0255: 1.		
HLMIZ40	715586	2683	70 - 255	12435		H0254: 1 and H0255: 1.		
HLMJA05	932173	2684	173 - 346	12436	Arg-1 to Pro-6, His-18 to Gly-27.	H0255: 2		
HLMJA30	955980	2685	3 - 359	12437	Pro-43 to Trp-52, Ser-56 to Val-62.	H0255: 3		
HLMJA66	799731	2686	227 - 355	12438		H0255: 3		
HLMJA83	712447	2687	100 - 456	12439	Gly-1 to His-19, Cys-78 to Gln-85.	H0255: 1 and H0063: 1.		
HLMJB04	968284	2688	29 - 166	12440		H0255: 2		
HLMJB23	578827	2689	3 - 170	12441	Lys-14 to Ser-28, His-41 to Arg-47.	H0255: 2		
HLMJB60	924974	2690	102 - 260	12442	Arg-18 to Trp-26.	H0255: 2		
HLMJC35	576944	2691	2 - 226	12443	Asn-56 to Arg-67.	H0255: 2		
HLMJC76	770177	2692	71 - 286	12444	Arg-11 to Arg-19, Cys-29 to Met-38.	H0255: 1 and H0607: 1.		
HLMMA16	576612	2693	91 - 321	12445	Arg-63 to Trp-68, Pro-70 to Leu-75.	H0341: 1 and H0255: 1.		
HLMMA52	920292	2694	1 - 384	12446	Gly-1 to Gly-10, His-22 to Ser-34, Gly-39 to Asp-55,	H0657: 1, H0255: 1, H0318: 1 and H0445: 1.		

					His-76 to Gln-94, Pro-96 to Glu-113.			
HLMMA76	799741	2695	82 - 339	12447		H0255: 3		
HLMMC72	760717	2696	104 - 316	12448	Phe-16 to His-24, Glu-27 to Lys-37, Leu-44 to Asp-55.	H0255: 2		
HLMMD05	932127	2697	97 - 414	12449	Ser-1 to Ser-11.	H0265: 1 and H0255: 1.		
HLMMD26	799743	2698	142 - 258	12450	Thr-13 to Leu-18, Arg-20 to His-25.	H0255: 3		
HLMMD28	959900	2699	17 - 154	12451	Leu-6 to Asn-22.	H0255: 3		
HLMMD89	920442	2700	163 - 2	12452	Lys-1 to Asn-7, Gly-36 to Gln-53.	H0255: 3		
HLMME77	710989	2701	82 - 195	12453		H0255: 1 and H0445: 1.		
HLMMF24	677303	2702	191 - 370	12454		H0255: 1, H0057: 1 and L0750: 1.		
HLMMF82	571403	2703	3 - 275	12455		H0255: 2		
HLMMG02	920427	2704	182 - 364	12456		H0255: 2		
HLMMG23	881361	2705	94 - 345	12457		H0255: 2		
HLMMI18	666575	2706	28 - 222	12458	Tyr-1 to Asp-7.	H0255: 1 and H0264: 1.		
HLMMI86	678672	2707	1 - 222	12459	Pro-16 to Glu-22.	H0255: 2		
HLMMJ08	959630	2708	187 - 417	12460		H0255: 1 and S0052: 1.		
HLMMJ37	577571	2709	91 - 366	12461		H0255: 2		
HLMMK28	577670	2710	14 - 427	12462	Asp-1 to Arg-6, His-8 to His-14, His-33 to Pro-43, Glu-86 to Asp-94.	H0255: 2		
HLMMK39	576167	2711	33 - 188	12463		H0255: 2, L0518: 1 and L0758: 1.		
HLMMN01	657354	2712	3 - 278	12464		H0255: 2 and L0771: 1.		
HLMMN32	576180	2713	3 - 227	12465	Pro-13 to Ser-25, Cys-32 to His-37, Arg-60 to Met-66.	H0255: 2		
HLMMN91	795915	2714	2 - 319	12466		H0255: 2		
HLMMO61	740655	2715	3 - 275	12467	Thr-50 to Pro-55, Ala-60 to Trp-69.	H0255: 2		
HLMMP25	576166	2716	79 - 291	12468		H0255: 2 and L0761: 1.	17q11.2	154275, 162200,

								162200, 182138, 239100, 600881, 601954, 602403
HLMMP68	799715	2717	56 - 364	12469	Arg-38 to Lys-44.	H0255: 3		
HLMMP69	754221	2718	26 - 307	12470		H0255: 2		
HLMMP75	876036	2719	49 - 288	12471	Gln-1 to Met-11.	H0255: 4		
HLMMP88	793125	2720	93 - 470	12472	Cys-45 to Arg-50, Ala-72 to Leu-78.	S0052: 3, H0255: 1 and S0053: 1.		
HLMMR20	799720	2721	158 - 328	12473	Asp-3 to Pro-15.	H0255: 3		
HLMMR39	711503	2722	85 - 234	12474		H0255: 2		
HLMMR45	799771	2723	169 - 447	12475	Thr-9 to Arg-15.	H0255: 5		
HLMMT08	959578	2724	326 - 685	12476		H0255: 1, H0416: 1 and L0749: 1.		
HLMMT22	799737	2725	60 - 233	12477		H0255: 3		
HLMMT72	799719	2726	205 - 336	12478	Pro-19 to Cys-29.	H0255: 3		
HLMMT74	506234	2727	36 - 254	12479	Ala-20 to Gly-28.	H0255: 2		
HLMMT76	578143	2728	141 - 308	12480		H0255: 2		
HLMMU42	424663	2729	33 - 272	12481		H0255: 2, S0426: 1, L0518: 1 and L0748: 1.		
HLMMV25	799718	2730	111 - 317	12482		H0255: 3 and L0749: 1.		
HLMMV63	463919	2731	153 - 530	12483		H0255: 2 and S0052: 1.		
HLMMV65	799706	2732	153 - 329	12484		H0255: 3 and S0053: 1.		
HLMMV66	926188	2733	218 - 448	12485		AR061: 7, AR089: 5 H0255: 2, L0493: 2 and L0662: 1.		
HLMMW06	935621	2734	2 - 145	12486	Gly-8 to Lys-13.	H0255: 2		
HLMMW07	953833	2735	41 - 310	12487	Val-43 to Asp-52, Glu-79 to Asn-84.	H0255: 2		
HLMMW29	577160	2736	63 - 305	12488		H0255: 2		
HLMMW33	702478	2737	30 - 212	12489	Glu-19 to Ser-34.	H0255: 2		
HLMMW37	577153	2738	3 - 347	12490	His-1 to Gly-19, Pro-44 to Gly-51, Pro-65 to Gly-70, Ser-75 to Gly-82.	H0255: 2		
HLMMW44	716797	2739	130 - 291	12491	Ala-33 to Leu-45.	H0255: 2		

HLMMW55	815997	2740	2 - 229	12492		H0255: 2		
HLMMW71	761346	2741	2 - 103	12493	Glu-13 to Arg-22.	H0255: 2		
HLMMW77	577150	2742	112 - 273	12494	Pro-10 to Gly-20, Glu-23 to Arg-30.	H0255: 2		
HLMMX19	861317	2743	574 - 362	12495	Trp-1 to Gln-7, Pro-10 to Gly-17.	H0255: 2 and S0426: 1.		
HLMMX57	734985	2744	123 - 293	12496	Glu-10 to Gly-25, Ser-44 to Leu-56.	H0255: 2		
HLMMX72	760651	2745	1 - 234	12497	Gly-1 to Pro-7.	H0255: 2		
HLMMX73	764455	2746	2 - 250	12498	Ala-1 to Ser-8, Met-23 to His-30.	H0255: 2		
HLMMX85	783429	2747	90 - 206	12499	Thr-1 to Leu-10, Thr-33 to Lys-39.	H0255: 2		
HLMMY01	916636	2748	261 - 557	12500		H0255: 3 and L0774: 1.		
HLMMY03	924511	2749	107 - 355	12501	Leu-10 to Asn-25, Pro-36 to Asp-55.	H0255: 2		
HLMMZ13	856802	2750	250 - 432	12502	Gln-25 to Ser-33.	H0255: 2		
HLMMZ16	927659	2751	3 - 155	12503	Arg-27 to Asn-42.	H0255: 2 and H0341: 1.		
HLMNA14	918207	2752	159 - 692	12504		L0595: 3, L0769: 2, L0779: 2, H0556: 1, H0255: 1, L0794: 1 and L0783: 1.		
HLMNA84	577572	2753	131 - 343	12505	Pro-44 to Gly-49.	L0777: 4 and H0255: 2.		
HLMNA88	856809	2754	106 - 306	12506	Leu-56 to Ala-64.	H0255: 2		
HLMNA91	765862	2755	75 - 386	12507	Arg-11 to Gly-20, Cys-22 to Val-34, Ala-57 to Lys-62, Val-64 to Pro-79.	H0255: 2	3	
HLMNB08	959559	2756	2 - 361	12508	Ala-3 to Glu-8.	H0255: 2		
HLMNB94	575838	2757	67 - 186	12509		H0255: 2		
HLMNE84	760695	2758	34 - 222	12510		H0255: 2		
HLMNG08	876147	2759	164 - 508	12511	Ala-42 to Gly-48, Ala-50 to Met-60, Gln-80 to Glu-91.	L0599: 4, H0255: 1, H0318: 1, L0761: 1, L0655: 1, L0517: 1 and H0543: 1.		
HLMNG68	921008	2760	120 - 263	12512		H0255: 1 and H0445: 1.		
HLMNH23	787043	2761	168 - 422	12513		H0255: 2		
HLMNH25	575921	2762	183 - 407	12514	Trp-26 to Trp-32.	H0255: 2, L0748: 1 and		

						L0745: 1.		
HLMNI37	920361	2763	38 - 253	12515	Lys-2 to Gly-10.	H0255: 2		
HLMNI69	531356	2764	1 - 180	12516		H0255: 2		
HLMNL01	835623	2765	112 - 270	12517	Val-36 to Tyr-43.	H0255: 2		
HLMNL06	935626	2766	7 - 177	12518	Pro-27 to Ile-35.	H0255: 2, L0060: 1 and L0766: 1.		
HLMNL08	839948	2767	2 - 205	12519		H0255: 2		
HLMNL23	675970	2768	147 - 335	12520	Lys-1 to Arg-6, Arg-25 to Leu-35, Lys-41 to Leu-46.	H0255: 2		
HLMNL55	964739	2769	135 - 281	12521	Arg-23 to Ser-28.	H0255: 2		
HLMNL57	575900	2770	3 - 104	12522		H0255: 2		
HLMNL64	578627	2771	74 - 271	12523		H0255: 2		
HLMNM19	668746	2772	238 - 441	12524	Tyr-4 to His-9.	H0255: 2		
HLMNM39	577649	2773	1 - 213	12525		H0255: 2		
HLMNM44	577106	2774	72 - 197	12526		H0255: 1, H0306: 1 and L0369: 1.		
HLMNM61	575889	2775	200 - 355	12527		H0255: 2		
HLMNN02	920296	2776	2 - 400	12528	Gln-8 to His-15, Gly-30 to Lys-36, Ser-41 to Lys-49.	H0255: 2		
HLMNO52	968377	2777	253 - 456	12529	Lys-36 to Arg-41.	H0255: 2, L0809: 2, L0766: 1 and L0599: 1.		
HLMNQ35	575906	2778	14 - 217	12530	Gln-20 to Gln-25.	H0255: 3		
HLMNT27	752366	2779	93 - 272	12531	His-1 to Ser-8, Arg-24 to Ser-30.	H0255: 3		
HLMNT62	745733	2780	191 - 253	12532	Pro-11 to Gly-21.	H0255: 2		
HLMNU73	577693	2781	1 - 390	12533	Gly-1 to Leu-15, Pro-23 to Asp-35, Leu-55 to Arg-63.	H0255: 2, H0305: 2 and H0556: 1.		
HLMNW94	577157	2782	3 - 251	12534	Arg-35 to Ser-42.	H0255: 2		
HLMNW96	799745	2783	3 - 290	12535		H0255: 3		
HLMNX15	660316	2784	2 - 166	12536		H0255: 2		
HLMNX33	702477	2785	180 - 404	12537	Ala-22 to Pro-28.	H0255: 2		
HLMNX74	765800	2786	147 - 260	12538	Glu-10 to Leu-15.	H0255: 2		

HLNSF63	509519	2787	184 - 351	12539		H0108: 2		
HLNSG27	684650	2788	100 - 252	12540	Pro-4 to Ala-9, Glu-33 to Ala-51.	L0748: 5, L0751: 2, H0486: 1, H0108: 1, H0318: 1, L0790: 1 and L0594: 1.	12	
HLTAA66	503025	2789	18 - 308	12541	Ser-13 to Ser-18.	H0090: 2		
HLTAA94	503019	2790	135 - 275	12542	Gln-12 to Thr-17.	H0090: 2		
HLTAI12	971523	2791	173 - 487	12543	Arg-71 to Val-79.	L0777: 5, H0090: 2, L0743: 2, L0803: 1, L0774: 1, L0784: 1, L0742: 1, L0747: 1, L0749: 1, L0756: 1 and L0779: 1.		
HLTAI56	960750	2792	42 - 188	12544		H0090: 2		
HLTAL59	508603	2793	3 - 83	12545	Lys-17 to Pro-24.	H0090: 2		
HLTAR67	578467	2794	3 - 200	12546	Pro-39 to Gly-50.	H0416: 1 and H0090: 1.		
HLTAR90	524360	2795	3 - 182	12547	Pro-3 to Leu-17, Gln-31 to Lys-42.	H0090: 3		
HLTAT22	508592	2796	170 - 328	12548	Lys-32 to Ser-37.	H0090: 2		
HLTAT93	575133	2797	192 - 323	12549	Lys-19 to Gly-24.	H0090: 2		
HLTAU67	703103	2798	1 - 234	12550		H0090: 2		
HLTAW36	536674	2799	121 - 294	12551	Leu-1 to Phe-9.	H0090: 2		
HLTAW69	753707	2800	1 - 516	12552	Glu-16 to Leu-25, Tyr-36 to Asn-41, Ser-51 to Lys-56, Ser-59 to Ser-72, Val-104 to Thr-129, Arg-139 to Asn-151.	H0090: 1 and H0423: 1.		
HLTBL46	508925	2801	127 - 321	12553		S0114: 1 and H0090: 1.		
HLTBN29	703295	2802	2 - 253	12554	Glu-21 to Arg-26, Glu-28 to Thr-35.	H0421: 1 and H0090: 1.		
HLTBO49	839804	2803	48 - 260	12555	Leu-11 to Leu-17.	L0005: 4 and H0090: 2.		
HLTBU04	928005	2804	209 - 403	12556	Asp-36 to Ser-43.	H0090: 3		
HLTBW51	522881	2805	10 - 171	12557		H0090: 2		
HLTBX34	856609	2806	1 - 168	12558	Leu-25 to Ser-32.	H0583: 1 and H0090: 1.		
HLTCL66	417344	2807	2 - 265	12559	Ser-6 to Leu-16.	H0090: 1 and H0522: 1.		
HLTCM12	888630	2808	30 - 248	12560	Pro-13 to Met-18.	AR054: 1, AR050: 0 H0090: 4		

HLTCQ51	725845	2809	105 - 314	12561	Ile-4 to Pro-14, Glu-18 to Trp-31, Gly-53 to Val-60.	H0090: 1 and H0488: 1.		
HLTCR55	839556	2810	56 - 244	12562		L0748: 7, H0090: 2, H0264: 1, S0052: 1, L0749: 1 and H0445: 1.		
HLTCT75	766511	2811	72 - 230	12563		L0731: 2, H0611: 1, H0090: 1, L0659: 1, L0666: 1, L0752: 1 and H0543: 1.		
HLTCU58	625309	2812	11 - 211	12564	Lys-21 to Glu-26.	H0090: 3		
HLTCV43	715525	2813	81 - 368	12565	Glu-1 to Ser-17, Ala-19 to Ser-27.	H0090: 3		
HLTCV57	535289	2814	1 - 198	12566		H0090: 2		
HLTCV63	574712	2815	2 - 103	12567	Arg-29 to Thr-34.	H0090: 2		
HLTCZ25	574704	2816	20 - 124	12568	Lys-6 to Tyr-15.	H0090: 3, S0212: 2, H0063: 2, H0488: 1, L0789: 1 and S0428: 1.	1	
HLTCZ37	574705	2817	1 - 183	12569		H0090: 2		
HLTDC32	574699	2818	1 - 288	12570	Gly-2 to Pro-10.	H0271: 1 and H0090: 1.		
HLTDC80	574698	2819	194 - 367	12571	Ser-12 to Ala-23.	H0271: 1 and H0090: 1.		
HLTDD44	522698	2820	59 - 115	12572		H0090: 2		
HLTDD62	571328	2821	14 - 259	12573		H0090: 2		
HLTDE78	856603	2822	2 - 157	12574		H0090: 2		
HLTDK54	574714	2823	117 - 290	12575	Ser-30 to Asn-36.	H0090: 2		
HLTDK64	772378	2824	3 - 149	12576		H0543: 2, H0556: 1, H0341: 1, H0090: 1, H0591: 1, L0766: 1 and L0758: 1.	5q35	123101, 164040, 208100, 246530
HLTDL71	508932	2825	3 - 200	12577	Glu-14 to Phe-22, Val-58 to Gln-64.	H0090: 2		
HLTDT14	973100	2826	34 - 255	12578		H0179: 1 and H0090: 1.		
HLTDY57	934619	2827	160 - 513	12579		H0611: 1, H0069: 1, H0090: 1 and H0264: 1.		
HLTEA13	971722	2828	559 - 681	12580		H0179: 2, H0090: 1 and H0445: 1.		
HLTEE40	711453	2829	160 - 2	12581		H0083: 1 and H0090: 1.		
HLTEF24	871203	2830	3 - 149	12582	Gln-26 to Gln-33.	H0090: 2		

HLTEI47	720474	2831	469 - 597	12583		H0580: 1 and H0090: 1.		
HLTEI53	723405	2832	1 - 231	12584		S0114: 1, H0614: 1 and H0090: 1.		
HLTEK94	793033	2833	83 - 361	12585		H0090: 2		
HLTEL11	967529	2834	38 - 127	12586	Asn-14 to Ile-22, Ser-24 to Phe-30.	H0341: 2 and H0090: 1.		
HLTEL25	508607	2835	2 - 124	12587		H0090: 2		
HLTEL59	851867	2836	378 - 575	12588	Arg-16 to Asn-22, Arg-29 to Glu-35.	H0090: 2 and L0748: 1.		
HLTEO88	955228	2837	133 - 270	12589		H0090: 2		
HLTES50	958906	2838	67 - 255	12590	Arg-8 to Asn-14.	L0766: 4, L0779: 2, H0486: 1, H0090: 1, L0520: 1, L0761: 1, L0666: 1, L0438: 1 and L0745: 1.		
HLTES59	739412	2839	112 - 273	12591		H0250: 1 and H0090: 1.		
HLTEX10	968060	2840	116 - 247	12592	Gly-11 to Ser-19.	H0090: 2		
HLTEX38	573353	2841	84 - 206	12593	Arg-28 to Gln-36.	H0090: 2		
HLTEZ24	572779	2842	237 - 470	12594		H0090: 2 and H0063: 1.		
HLTEZ33	574634	2843	95 - 244	12595	Cys-13 to Arg-20.	H0090: 2		
HLTFA05	932221	2844	185 - 334	12596		H0581: 1 and H0090: 1.		
HLTFA34	703403	2845	2 - 109	12597		H0580: 1, H0090: 1 and L0803: 1.		
HLTGF04	927449	2846	533 - 784	12598	Pro-78 to Lys-84.	L0439: 3, S0426: 2, L0766: 2, H0657: 1, H0591: 1, S0002: 1, L0772: 1, L0775: 1, L0438: 1, H0521: 1, L0748: 1 and L0758: 1.		
HLTGF55	669071	2847	180 - 19	12599	Glu-1 to Asn-6, Phe-27 to Lys-33, Pro-43 to Gly-51.	H0591: 2		
HLTGG25	677696	2848	65 - 310	12600	Asn-1 to Asn-6, Pro-9 to Ser-16.	H0591: 2		
HLTGG61	741529	2849	25 - 186	12601	Glu-21 to Trp-27.	H0591: 2		
HLTGM60	973438	2850	253 - 468	12602	Asn-10 to Cys-15, Lys-35 to Gly-44.	H0591: 17		
HLTGP51	725140	2851	32 - 163	12603	Ser-17 to Ala-22.	H0591: 2		

HLTGP63	744700	2852	238 - 80	12604	Ile-38 to Ile-43.	H0318: 1 and H0591: 1.		
HLTGS44	716323	2853	132 - 251	12605		H0591: 1, L0748: 1 and H0423: 1.		
HLTGV54	729247	2854	2 - 136	12606	Gln-14 to His-19.	H0591: 2		
HLTGV64	665647	2855	228 - 413	12607	Gln-28 to Asn-34.	H0591: 4 and L0758: 1.		
HLTGV67	747584	2856	293 - 430	12608		H0591: 3		
HLTGX26	681233	2857	165 - 311	12609		H0591: 2		
HLTGY75	767060	2858	113 - 343	12610		H0090: 1 and H0591: 1.		
HLTHC34	702078	2859	1 - 159	12611	Leu-28 to Asn-34.	H0591: 3		
HLTHH89	974112	2860	43 - 249	12612		H0591: 3		
HLTHI11	966435	2861	412 - 597	12613		H0591: 3, H0581: 1 and H0444: 1.		
HLTHJ35	707245	2862	379 - 543	12614		L0766: 2, H0581: 1, H0591: 1, H0576: 1 and L0748: 1.		
HLTHJ68	719927	2863	160 - 294	12615		S0218: 1 and H0591: 1.		
HLTHO15	969356	2864	2 - 205	12616		H0591: 2		
HLTHO31	697550	2865	2 - 196	12617		H0591: 2		
HLTHO46	923482	2866	157 - 273	12618		H0591: 2		
HLTHS75	965126	2867	103 - 381	12619	Thr-79 to Leu-85.	H0591: 1 and H0423: 1.		
HLTHV83	780482	2868	670 - 837	12620		H0591: 1 and H0444: 1.		
HLTIJ72	968986	2869	54 - 296	12621		H0591: 2		
HLYAA21	671074	2870	428 - 715	12622	Pro-2 to Lys-19, Glu-24 to Pro-42, Pro-71 to Gln-78, Gly-89 to Lys-96.	L0731: 2, H0402: 1 and H0445: 1.		
HLYAA41	909874	2871	3 - 386	12623	Asp-1 to Ser-7, Pro-10 to Cys-18, Glu-36 to Ala-54, Tyr-83 to Pro-91, Pro-108 to Gly-115.	AR089: 1, AR061: 1 H0445: 4, L0761: 2, H0421: 1, S0002: 1 and L0788: 1.		
HLYAA44	964841	2872	62 - 298	12624	Asp-19 to Arg-30, Lys-73 to Ala-78.	H0445: 5 and L0748: 1.		
HLYAB02	920407	2873	171 - 332	12625	Asn-1 to Pro-6.	S0114: 1 and H0445: 1.		
HLYAB38	861161	2874	3 - 215	12626	Phe-45 to Tyr-50.	S0212: 3 and H0445: 1.		
HLYAC38	668989	2875	1 - 273	12627		H0445: 2		

HLYAD10	964845	2876	350 - 550	12628	Lys-1 to Lys-8, Thr-29 to Ser-36.	H0445: 2		
HLYAE50	576449	2877	313 - 471	12629	Gly-30 to Pro-53.	H0402: 1 and H0445: 1.		
HLYAF20	668872	2878	454 - 663	12630		L0766: 8, L0748: 4, L0756: 2, L0777: 2, L0604: 2, L0157: 1, H0591: 1, L0750: 1, L0779: 1, H0445: 1 and H0543: 1.		
HLYAF28	975007	2879	269 - 424	12631	Lys-11 to Tyr-17.	H0445: 2		
HLYAG42	691747	2880	45 - 152	12632		H0445: 2 and S0428: 1.		
HLYAH26	855981	2881	3 - 419	12633		H0444: 1 and H0445: 1.	14q32.1	107280, 107280, 107400, 107400, 122500, 186960, 245200, 601841
HLYAK12	970807	2882	143 - 295	12634		H0445: 2		
HLYAL83	780075	2883	303 - 482	12635	Lys-1 to Ala-7, Ser-25 to Glu-39, Thr-44 to Gly-53.	S0052: 1 and H0445: 1.		
HLYAO31	698104	2884	125 - 271	12636	Pro-10 to Gln-15, Ser-30 to Arg-37, Gly-43 to Cys-49.	H0445: 2, L0002: 1 and L0594: 1.		
HLYAO67	924042	2885	96 - 314	12637	Asn-22 to Leu-35, Phe-43 to Ala-59.	H0305: 2, L0731: 1 and H0445: 1.		
HLYAP10	964748	2886	288 - 431	12638	Gly-28 to Lys-47.	S0052: 1 and H0445: 1.		
HLYAP26	681892	2887	195 - 362	12639		H0580: 1 and H0445: 1.		
HLYAQ80	868396	2888	319 - 564	12640	Pro-39 to Lys-58.	H0581: 1 and H0445: 1.		
HLYAT56	935552	2889	1 - 213	12641		H0421: 1, S0052: 1 and H0445: 1.		
HLYAU29	576596	2890	3 - 251	12642		H0402: 1, L0745: 1 and H0445: 1.		
HLYAV80	689969	2891	3 - 221	12643	Asp-1 to Ser-16.	H0445: 3		
HLYAW35	780987	2892	261 - 386	12644		H0580: 1 and H0445: 1.		
HLYAX61	707248	2893	184 - 333	12645		H0445: 2		
HLYAX85	575868	2894	2 - 391	12646		H0402: 1, L0761: 1, H0436: 1 and H0445: 1.		
HLYAY62	825513	2895	93 - 350	12647		H0445: 2		

HLYAY65	575863	2896	1 - 237	12648		H0445: 2		
HLYBA01	916635	2897	341 - 478	12649		H0445: 2		
HLYBA42	871648	2898	497 - 664	12650	Ser-38 to Arg-56.	H0445: 2 and L0605: 1.		
HLYBA72	717644	2899	178 - 351	12651		H0445: 2		
HLYBA85	575878	2900	2 - 280	12652	Arg-1 to Thr-9, Lys-64 to Lys-80.	H0445: 2		
HLYBA96	575834	2901	1 - 123	12653	Ser-21 to Glu-29.	H0445: 2		
HLYBB50	708624	2902	158 - 353	12654	Met-11 to Gln-19.	H0445: 2		
HLYBB65	866883	2903	331 - 477	12655	Glu-38 to Arg-43.	S0114: 1 and H0445: 1.		
HLYBD46	575865	2904	2 - 133	12656	Pro-1 to Cys-6, Ser-37 to Thr-44.	H0445: 2		
HLYBF47	706517	2905	259 - 420	12657	Arg-28 to Asn-33.	H0305: 1, L0766: 1, L0517: 1 and H0445: 1.		
HLYBF75	828077	2906	197 - 442	12658	Pro-27 to Phe-35.	L0758: 3, H0264: 2, L0779: 1 and H0445: 1.		
HLYBG18	575872	2907	335 - 478	12659	Lys-11 to Leu-20.	H0445: 2		
HLYBH08	856445	2908	104 - 271	12660		L0749: 2, S0114: 1 and H0445: 1.		
HLYBH56	733472	2909	161 - 406	12661	Ser-17 to Tyr-31, Asn-70 to His-82.	H0445: 2		
HLYBH91	576793	2910	329 - 478	12662		H0090: 1 and H0445: 1.		
HLYBI44	728035	2911	2 - 259	12663	Arg-4 to Ala-10, Val-12 to Gly-21.	H0423: 2 and H0445: 1.		
HLYBJ10	964752	2912	195 - 455	12664	Gly-10 to Arg-25.	H0445: 2		
HLYBJ42	713845	2913	121 - 252	12665		H0445: 3 and L0766: 1.		
HLYBL92	856419	2914	389 - 592	12666		H0445: 3, H0255: 2, L0749: 2, H0556: 1, H0402: 1, H0108: 1, H0090: 1, H0436: 1, H0444: 1 and S0196: 1.		
HLYBM35	625408	2915	81 - 302	12667	Thr-28 to Lys-36, Arg-43 to Glu-48.	H0445: 2 and L0748: 1.		
HLYBM75	757084	2916	138 - 278	12668	Gln-6 to Arg-12, Arg-17 to Arg-25, Asn-30 to Asp-44.	H0445: 2		
HLYBN94	670500	2917	207 - 353	12669		H0445: 2		
HLYBO53	721377	2918	140 - 262	12670	Lys-12 to Gly-27,	H0445: 4		

					Trp-31 to Ile-38.			
HLYBR03	924515	2919	203 - 397	12671	Gln-1 to His-13.	H0402: 1 and H0445: 1.		
HLYBR41	712389	2920	334 - 510	12672		H0445: 3		
HLYBR83	750318	2921	1 - 255	12673	Ala-6 to Ser-11, Gly-19 to His-27.	L0805: 2, H0445: 2, L0766: 1, L0803: 1, L0438: 1 and H0436: 1.		
HLYBS12	970795	2922	455 - 646	12674		S0212: 2, L0143: 1, H0202: 1 and H0445: 1.		
HLYBT19	668744	2923	2 - 250	12675		L0749: 2, H0457: 1, L0748: 1 and H0445: 1.		
HLYBT64	527687	2924	67 - 225	12676		H0305: 2, L0809: 1, L0720: 1 and H0445: 1.		
HLYBT69	678175	2925	132 - 383	12677	Tyr-22 to Ser-31.	H0487: 1, H0521: 1 and H0445: 1.		
HLYBT84	575828	2926	1 - 57	12678	Ser-8 to Asn-19.	H0445: 2		
HLYBU28	914702	2927	38 - 196	12679		L0748: 2, H0445: 1 and H0543: 1.		
HLYBU52	727213	2928	121 - 267	12680	Ser-8 to Glu-14.	S0053: 1 and H0445: 1.		
HLYBV42	713837	2929	3 - 209	12681		H0445: 2, L0803: 1, L0789: 1 and L0753: 1.		
HLYBW12	970796	2930	1 - 231	12682	Asp-22 to Val-28, Thr-56 to Ser-66, Pro-72 to Phe-77.	H0264: 1 and H0445: 1.		
HLYBW35	812692	2931	137 - 340	12683	Arg-5 to Phe-13, Ser-18 to Leu-23, Pro-32 to Ser-40.	S0052: 2, H0318: 1, S0428: 1 and H0445: 1.		
HLYBX77	721086	2932	113 - 220	12684		S0114: 1 and H0445: 1.		
HLYBX84	754842	2933	355 - 552	12685	Gly-11 to Gln-18.	H0445: 2		
HLYBZ17	577479	2934	127 - 387	12686	Ser-1 to Leu-7, Lys-60 to Gly-71.	H0457: 2, H0486: 1, H0264: 1, L0768: 1, L0666: 1, H0436: 1, L0754: 1, H0445: 1 and H0542: 1.		
HLYBZ23	856430	2935	20 - 310	12687	Ser-6 to Ser-13.	H0445: 2 and H0422: 1.		
HLYBZ60	682675	2936	82 - 192	12688	Asp-10 to His-19.	S0218: 1 and H0445: 1.		
HLYBZ86	856436	2937	306 - 536	12689	Glu-37 to Lys-52.	H0445: 2, L0439: 1 and L0758: 1.		

HLYCA76	770107	2938	88 - 342	12690	Gln-1 to His-6, Glu-42 to Glu-51, Thr-58 to Glu-66.	S0116: 1 and H0445: 1.		
HLYCA77	677758	2939	595 - 753	12691		H0445: 3		
HLYCC39	710843	2940	458 - 577	12692		H0445: 2, H0521: 1 and L0748: 1.		
HLYCC65	932727	2941	1 - 144	12693	Thr-21 to His-26.	H0445: 2		
HLYCF12	908532	2942	68 - 268	12694	Ser-5 to Ser-12.	H0087: 1 and H0445: 1.		
HLYCF46	718930	2943	82 - 234	12695	Arg-1 to Glu-6.	H0445: 1 and H0423: 1.		
HLYCF70	741417	2944	1 - 111	12696	Thr-15 to Gln-22.	S0218: 1 and H0445: 1.		
HLYCH10	964354	2945	236 - 382	12697	Ser-3 to Gly-10, Ala-14 to Phe-19.	H0635: 1 and H0445: 1.		
HLYCH15	964840	2946	85 - 186	12698		H0445: 5 and L0748: 1.		
HLYCM68	658540	2947	2 - 226	12699		H0445: 1 and H0422: 1.		
HLYCM88	732392	2948	247 - 378	12700		H0264: 1 and H0445: 1.		
HLYCN75	761510	2949	342 - 482	12701	Gly-6 to Thr-16.	S0114: 1 and H0445: 1.		
HLYCO31	697787	2950	17 - 163	12702	Ser-17 to Ser-22.	S0052: 1 and H0445: 1.		
HLYCO66	785990	2951	2 - 139	12703	Gln-5 to Asn-14, Pro-17 to Lys-22.	H0265: 1 and H0445: 1.		
HLYCO68	729293	2952	2 - 130	12704		H0445: 2		
HLYCP66	706435	2953	167 - 367	12705	Arg-61 to Cys-67.	L0766: 2, L0603: 2, H0306: 1, L0307: 1 and H0445: 1.		
HLYCQ53	728046	2954	63 - 314	12706	Asn-5 to Arg-11, Arg-25 to Trp-30, Thr-38 to Gly-48, Cys-66 to Lys-72, Gln-79 to Ser-84.	S0053: 1 and H0445: 1.		
HLYCQ68	752887	2955	3 - 140	12707	Gly-12 to Ala-18.	S0218: 1 and H0445: 1.		
HLYCR47	850147	2956	2 - 241	12708		H0306: 2, S0053: 2, H0445: 2, H0057: 1, H0179: 1, L0667: 1 and S0428: 1.		
HLYCS15	660006	2957	3 - 149	12709	Arg-44 to His-49.	H0445: 2		
HLYCV49	718840	2958	137 - 307	12710		H0318: 1 and H0445: 1.		
HLYCW04	615021	2959	3 - 344	12711	His-1 to Gly-6, Glu-18 to Glu-24.	H0444: 1 and H0445: 1.		
HLYCW13	656827	2960	1 - 192	12712		H0445: 2		

HLYCW20	669541	2961	113 - 346	12713	Ser-24 to Gln-29.	S0002: 1 and H0445: 1.		
HLYCW62	856443	2962	625 - 843	12714		H0445: 5, H0422: 2, H0271: 1 and L0387: 1.		
HLYCY30	650859	2963	3 - 143	12715	Glu-6 to Asn-21.	H0402: 1, S0053: 1 and H0445: 1.		
HLYCZ63	744886	2964	82 - 243	12716		H0591: 1 and H0445: 1.		
HLYDB85	784253	2965	105 - 281	12717		H0445: 2		
HLYDC02	919586	2966	564 - 743	12718		H0657: 1 and H0445: 1.		
HLYDC77	772022	2967	120 - 266	12719	Arg-1 to Gln-8.	H0445: 2		
HLYDD13	657010	2968	350 - 466	12720	Lys-25 to Leu-33.	H0445: 2		
HLYDG06	935149	2969	1 - 183	12721	Tyr-14 to Gln-19, Asp-53 to Gly-61.	H0445: 2 and L0606: 1.		
HLYDG21	856413	2970	371 - 550	12722		H0087: 1 and H0445: 1.		
HLYDG27	682910	2971	173 - 391	12723	Pro-26 to Trp-32, Glu-36 to Cys-43, Pro-46 to Ile-54.	H0264: 1 and H0445: 1.		
HLYDG38	597131	2972	174 - 299	12724	Ile-7 to Arg-24, Gln-33 to Lys-42.	H0445: 2, S0216: 1 and L0748: 1.		
HLYDG59	871587	2973	218 - 451	12725	Arg-1 to Phe-8.	H0486: 1 and H0445: 1.		
HLYDH27	678266	2974	1 - 189	12726	Leu-20 to Trp-26.	L0517: 2, L0748: 2, H0318: 1, H0581: 1, L0761: 1, L0766: 1 and H0445: 1.		
HLYDH32	699082	2975	102 - 245	12727	Lys-36 to Lys-42.	H0445: 2 and L0766: 1.		
HLYDH52	726575	2976	373 - 540	12728	Leu-1 to Lys-8, Lys-19 to Pro-30.	H0445: 2		
HLYDJ08	959055	2977	282 - 527	12729		H0057: 1, L0663: 1 and H0445: 1.		
HLYDK74	738346	2978	124 - 375	12730		H0265: 1 and H0445: 1.		
HLYDL24	677041	2979	71 - 319	12731		L0748: 2, L0608: 2, H0635: 1, L0655: 1 and H0445: 1.		
HLYDL60	909866	2980	3 - 392	12732	Ala-4 to Cys-11, Cys-15 to Arg-20, Pro-29 to Leu-35.	H0656: 1, H0457: 1 and H0445: 1.		
HLYDL75	790244	2981	88 - 258	12733		H0445: 2		
HLYDM51	973377	2982	201 - 431	12734	Asp-18 to Arg-38.	H0306: 2 and H0445: 1.		
HLYDM62	743380	2983	105 - 287	12735		S0053: 1 and H0445: 1.		

HLYDO56	733240	2984	234 - 70	12736		H0402: 1 and H0445: 1.		
HLYDO75	767170	2985	72 - 359	12737	Lys-3 to Arg-8, Met-50 to Lys-68, Lys-90 to Asn-95.	H0445: 2 and L0747: 1.		
HLYDS11	966732	2986	111 - 302	12738	Arg-17 to Ser-23.	L0748: 1, L0749: 1, H0444: 1 and H0445: 1.		
HLYDS66	711565	2987	324 - 506	12739		S0114: 1, H0318: 1 and H0445: 1.		
HLYDS84	687991	2988	175 - 360	12740	Pro-9 to Val-34.	H0255: 1, H0402: 1 and H0445: 1.		
HLYDS91	775483	2989	221 - 379	12741	Asp-1 to Tyr-11.	H0543: 2 and H0445: 1.		
HLYDT03	920268	2990	88 - 222	12742		H0305: 2, H0402: 1, L0521: 1 and H0445: 1.		
HLYDT68	526245	2991	8 - 187	12743	Ile-3 to Thr-11.	H0222: 1, H0264: 1 and H0445: 1.		
HLYDU08	959074	2992	87 - 254	12744		H0445: 2		
HLYDV62	927872	2993	2 - 430	12745	Pro-19 to Cys-27, Glu-45 to Ala-63, Asp-96 to Pro-102, Pro-117 to Gly-124, Pro-132 to Ser-143.	AR051: 24, AR054: 20, AR050: 20, AR061: 1, AR089: 1 H0445: 4, L0761: 2, H0421: 1, S0002: 1 and L0788: 1.		
HLYDX93	669792	2994	72 - 278	12746	Lys-19 to Leu-27, Gly-50 to Pro-55.	S0134: 1 and H0445: 1.		
HLYDZ44	716435	2995	137 - 370	12747	Phe-6 to Asn-12.	H0637: 1, L0439: 1 and H0445: 1.		
HLYEB56	710819	2996	1 - 138	12748		H0445: 2, L0659: 1 and L0599: 1.		
HLYED52	931992	2997	36 - 209	12749	Lys-26 to Asp-39.	H0445: 1 and H0543: 1.		
HLYED59	856383	2998	6 - 476	12750	Gln-11 to Val-16, Pro-35 to Lys-41.	L0757: 2, H0445: 2 and L0586: 1.		
HLYED65	747763	2999	111 - 227	12751	Tyr-12 to Thr-18, Ser-26 to Lys-37.	H0445: 2		
HLYED77	615312	3000	53 - 406	12752	Arg-18 to Gly-28, Pro-33 to Gly-41.	S0053: 1 and H0445: 1.		
HLYED85	784254	3001	199 - 501	12753	Ser-13 to Arg-21, Arg-64 to Thr-71.	H0521: 2, H0402: 1 and H0445: 1.		

HLYEE34	703906	3002	410 - 541	12754	Lys-36 to Phe-44.	H0445: 2 and L0526: 1.		
HLYEJ81	488925	3003	38 - 307	12755	Lys-38 to Ser-47, Val-51 to Gly-71, Lys-80 to Lys-85.	S0114: 1, H0521: 1 and H0445: 1.		
HLYEL47	666448	3004	182 - 445	12756	Asn-12 to Leu-19, Pro-37 to Phe-48.	S0114: 1 and H0445: 1.		
HLYEN93	682176	3005	338 - 490	12757	Asn-3 to Asp-11, Lys-27 to Asn-32.	H0318: 1 and H0445: 1.		
HLYEQ40	710986	3006	37 - 156	12758		H0402: 1, S0426: 1, S0428: 1 and H0445: 1.		
HLYEQ73	760566	3007	2 - 214	12759		S0114: 1 and H0445: 1.		
HLYER38	709181	3008	115 - 282	12760	Leu-2 to Ser-11, Lys-38 to Ala-46.	H0444: 1 and H0445: 1.		
HLYET03	923834	3009	161 - 274	12761	Tyr-1 to Phe-6.	H0445: 2		
HLYFA27	682763	3010	281 - 469	12762	Val-6 to Pro-12.	S0426: 1, H0445: 1 and L0362: 1.		
HLYFA58	835409	3011	68 - 328	12763	Gln-10 to Trp-15.	H0552: 4, L0761: 3, H0583: 2, H0556: 1, H0650: 1, L0785: 1, S0002: 1, L0655: 1, H0445: 1 and H0543: 1.		
HLYFC15	923620	3012	3 - 221	12764		H0580: 1 and H0445: 1.		
HLYFF10	964109	3013	265 - 576	12765		H0318: 2 and H0445: 2.		
HLYFF64	746339	3014	3 - 191	12766	Phe-30 to Ser-42.	H0445: 2		
HLYFI64	924558	3015	174 - 311	12767	Ser-13 to Ser-22.	L0770: 1, L0766: 1, H0445: 1 and H0423: 1.		
HLYFK47	953988	3016	260 - 436	12768	Gly-32 to His-49.	H0318: 1 and H0445: 1.		
HLYFO83	863918	3017	16 - 276	12769	Ala-38 to Gln-48.	H0421: 1 and H0445: 1.		
HLYFP23	675373	3018	261 - 476	12770		H0445: 2		
HLYFR38	709184	3019	99 - 1	12771	Lys-28 to Gly-33.	H0445: 2		
HLYFU64	936051	3020	255 - 422	12772	Gly-11 to Gly-32.	S0114: 1 and H0445: 1.		
HLYFX27	682776	3021	73 - 180	12773	Gln-27 to Arg-36.	H0445: 2		
HLYFX40	710851	3022	176 - 424	12774	Gly-55 to Gln-61.	H0370: 1, L0756: 1 and H0445: 1.		
HLYFX96	916452	3023	95 - 244	12775	Arg-5 to Lys-13, Pro-28 to Met-34.	H0445: 2		
HLYFY33	719251	3024	96 - 314	12776		T0002: 1, L0526: 1, L0758:		

						1 and H0445: 1.		
HLYFY78	660000	3025	157 - 408	12777		H0521: 1 and H0445: 1.		
HLYGA32	698860	3026	97 - 249	12778		S0116: 1, S0428: 1 and H0445: 1.		
HLYGA46	952292	3027	482 - 766	12779	Phe-28 to Lys-36.	H0445: 2, H0556: 1 and S0053: 1.		
HLYGC11	966480	3028	3 - 125	12780		S0114: 1 and H0445: 1.		
HLYGC18	665721	3029	10 - 366	12781	Thr-6 to Lys-33, Leu-47 to Lys-57, Phe-67 to Glu-83, Tyr-91 to Leu-97, Leu-105 to Ala-110.	L0777: 2, H0445: 2 and L0731: 1.		
HLYGC63	744739	3030	3 - 200	12782	Thr-12 to Glu-26, Ser-57 to Gln-66.	H0556: 1, H0069: 1, H0635: 1 and H0445: 1.		
HLYGE28	686173	3031	184 - 318	12783	Lys-1 to Lys-11, Ser-22 to His-28.	H0444: 1 and H0445: 1.		
HLYGH53	871636	3032	233 - 406	12784		S0212: 1, L0766: 1, L0779: 1 and H0445: 1.		
HLYGI23	656698	3033	154 - 258	12785	Glu-10 to Ser-15.	H0445: 2		
HLYGK24	676907	3034	39 - 122	12786		L0766: 2, H0402: 1, L0779: 1 and H0445: 1.		
HLYGK77	732362	3035	49 - 201	12787	Lys-22 to Lys-31.	H0445: 2 and H0250: 1.		
HLYGK82	698553	3036	127 - 294	12788	Gln-43 to Leu-49.	H0445: 1 and H0543: 1.		
HLYGK96	967628	3037	245 - 412	12789		S0114: 1 and H0445: 1.		
HLYGM41	712099	3038	197 - 310	12790	Glu-2 to Thr-12, Lys-20 to Leu-32.	H0264: 1 and H0445: 1.		
HLYGM53	690748	3039	234 - 563	12791	Ile-18 to Trp-24.	H0445: 2 and L0362: 1.		
HLYGP15	920077	3040	11 - 229	12792	Thr-7 to Trp-14, Arg-17 to Ser-33.	H0271: 1 and H0445: 1.		
HLYGP26	790301	3041	108 - 251	12793		L0748: 7, H0090: 2, H0264: 1, S0052: 1, L0749: 1 and H0445: 1.		
HLYGP46	832311	3042	3 - 644	12794	Lys-12 to Ser-29.	H0486: 1 and H0445: 1.		
HLYGR39	744849	3043	132 - 299	12795	Gln-1 to Trp-6.	H0444: 1 and H0445: 1.		
HLYGV02	856376	3044	80 - 238	12796		H0457: 1 and H0445: 1.		
HLYGV07	879387	3045	87 - 353	12797	Arg-17 to Asn-25.	H0341: 1, H0402: 1 and		

						H0445: 1.		
HLYGV66	697627	3046	449 - 607	12798	Glu-39 to Val-45.	H0445: 2 and L0748: 1.		
HLYHB85	773990	3047	78 - 254	12799		H0179: 1 and H0445: 1.		
HLYHG09	590369	3048	3 - 179	12800		L0748: 4, H0556: 1, L0378: 1 and H0445: 1.		
HLYHG18	665713	3049	147 - 248	12801	Gly-29 to Glu-34.	H0580: 1, H0445: 1 and L0362: 1.		
HLYHG45	711741	3050	321 - 599	12802	Phe-8 to Cys-15, Asn-34 to Trp-40.	H0116: 1, H0521: 1 and H0445: 1.		
HLYHI75	767066	3051	249 - 410	12803	Asp-1 to Ser-8, Pro-46 to Asn-54.	H0445: 2		
HLYHK02	919199	3052	188 - 361	12804	Asp-32 to Phe-42.	S0134: 1 and H0445: 1.		
HLYHL74	765292	3053	418 - 546	12805		H0487: 1 and H0445: 1.		
HLYHM86	784724	3054	245 - 427	12806		H0444: 1 and H0445: 1.		
HLYHN47	720019	3055	1 - 309	12807		L0666: 1, L0438: 1, L0748: 1, L0439: 1, H0445: 1 and H0422: 1.		
HLYHN67	920551	3056	1 - 336	12808	Lys-74 to Gly-81, Arg-103 to Glu-112.	H0090: 1 and H0445: 1.		
HLYHQ49	659883	3057	58 - 228	12809		H0445: 2		
HLYHQ79	751428	3058	304 - 561	12810		L0748: 2, H0444: 1 and H0445: 1.		
HMAAA35	773472	3059	3 - 230	12811	Ser-32 to Val-37, Gly-42 to Ala-49, Glu-51 to Gln-59, Gly-62 to His-69.	S0144: 1, H0521: 1, H0522: 1 and L0581: 1.		
HMAAE04	385644	3060	2 - 328	12812		S0144: 1 and S0142: 1.		
HMAAE83	745077	3061	166 - 288	12813	Asn-7 to Arg-15, Glu-26 to Asn-40.	S0144: 2	19q13.4	134790, 191044, 600040, 600138
HMAAF10	968199	3062	1 - 363	12814	Pro-28 to Asp-33, Glu-42 to Val-55, Lys-96 to Ala-107.	S0278: 1 and S0144: 1.		
HMABJ56	907640	3063	91 - 390	12815	His-1 to His-8, Glu-13 to Gly-20.	AR089: 1, AR061: 0 S0116: 1, S0144: 1, S0002: 1 and H0521: 1.		
HMABN34	706264	3064	3 - 302	12816	Pro-14 to Leu-19,	S0144: 3, L0659: 1 and		

					Ser-29 to Arg-39.	H0521: 1.		
HMABQ71	729831	3065	189 - 497	12817		AR089: 1, AR061: 0 S0144: 1 and H0521: 1.		
HMACS56	733395	3066	73 - 360	12818	Ser-17 to Trp-26.	S0144: 2		
HMADC02	920088	3067	3 - 218	12819		S0144: 2		
HMADL77	708074	3068	3 - 155	12820	Ala-1 to Gly-10, Arg-14 to Glu-20.	S0144: 1 and S0002: 1.		
HMADM33	970491	3069	4 - 156	12821	Asn-22 to Ile-34.	S0278: 1 and S0144: 1.		
HMADX31	697994	3070	29 - 262	12822	Asp-1 to Asp-11, Arg-13 to Lys-19.	S0144: 2 and L0791: 1.		
HMADZ55	939916	3071	3 - 746	12823	His-22 to Thr-31, Leu-46 to Cys-62, Leu-93 to Ser-98, Ala-100 to Asp-109, Ser-235 to Ser-240.	AR054: 42, AR051: 21, AR061: 3, AR089: 1, AR050: 1 S0144: 3, H0583: 1, S0278: 1 and L0791: 1.		
HMAEJ62	744337	3072	2 - 361	12824	Pro-12 to Arg-18, Ser-53 to Gly-60.	S0144: 2		
HMAFD57	734688	3073	3 - 233	12825	Ala-1 to Arg-15, Gly-61 to Ser-67.	H0416: 1 and S0144: 1.		
HMAFF77	856267	3074	32 - 244	12826	Ser-10 to Asn-19, Pro-27 to Pro-39.	S0144: 4, S0278: 3, S0142: 2 and H0060: 1.		
HMAFM35	925049	3075	246 - 440	12827	Leu-1 to Arg-13.	S0114: 1 and S0144: 1.		
HMAFM55	733286	3076	207 - 431	12828		S0278: 2 and S0144: 2.		
HMAFP30	692598	3077	1 - 156	12829	Arg-13 to Arg-20.	S0144: 4		
HMAFY42	778521	3078	1 - 312	12830		AR089: 1, AR061: 0 S0144: 1 and S0002: 1.		
HMAFZ61	741754	3079	14 - 103	12831		S0144: 2		
HMAGK69	723186	3080	31 - 417	12832	Arg-1 to Ser-6, Lys-23 to Glu-29, Ala-36 to Glu-42, Ser-77 to Gln-89.	AR089: 2, AR061: 1 S0278: 1 and S0052: 1.		
HMAHP62	736039	3081	2 - 334	12833		S0278: 1 and S0144: 1.		
HMAHR04	694042	3082	2 - 112	12834	Arg-1 to Gly-8, Thr-17 to Arg-25.	H0161: 1 and S0278: 1.		
HMAHS30	823422	3083	1 - 159	12835	Gly-6 to Glu-18, Pro-20 to Gly-30.	S0278: 1 and H0521: 1.		

HMAHX69	735355	3084	1 - 357	12836	Gly-47 to Lys-52.	H0556: 1 and S0278: 1.		
HMAIC22	947905	3085	1 - 435	12837	Pro-1 to Arg-16, His-45 to Pro-51.	AR061: 5, AR089: 2 S0278: 2		
HMAIP90	681320	3086	1 - 267	12838		S0278: 2		
HMAIU62	856278	3087	1 - 381	12839	Gly-52 to Pro-60, Phe-70 to Pro-75, Gly-120 to Thr-127.	S0278: 3		
HMAJY01	916259	3088	47 - 199	12840		S0278: 1 and S0142: 1.		
HMAKA11	801917	3089	869 - 1114	12841	Leu-3 to Arg-16, His-32 to Tyr-39, Pro-46 to Gly-54, Tyr-77 to Thr-82.	AR054: 2, AR050: 1, AR051: 0 S0278: 1 and S0144: 1.		
	966282	9569	211 - 606	19321	Ser-8 to Ser-16, Ala-89 to Tyr-95.			
HMAKF82	856311	3090	285 - 542	12842		S0278: 1 and S0002: 1.		
HMALL66	956195	3091	39 - 377	12843	Gln-54 to Val-63, Asn-88 to Pro-93.	AR061: 9, AR089: 3 L0770: 4, H0638: 1, S0278: 1, H0641: 1, L0763: 1, L0809: 1, L0779: 1 and L0758: 1.		
HMAMA69	975074	3092	129 - 377	12844	Phe-1 to Met-6.	S0278: 3		
HMAME11	955999	3093	2672 - 2196	12845		S0278: 1 and S0144: 1.		
HMCAF27	959557	3094	43 - 405	12846		H0477: 1, S0142: 1 and L0800: 1.		
HMCAJ60	586435	3095	2 - 301	12847	Arg-1 to Thr-30, Ser-44 to Gly-57, Lys-63 to Arg-68, Gln-72 to Trp-89, His-91 to Asp-97.	S0142: 2	6q22-q23	107470, 107470, 107470, 120110, 121014, 142470, 156225, 164200, 164200, 207800, 601316, 601410, 601757, 602067
HMCAO01	916843	3096	129 - 365	12848		S0142: 1 and S0344: 1.		
HMCAU25	856241	3097	1 - 267	12849	Ser-22 to Trp-35, Thr-43 to Trp-50.	S0142: 1 and S0344: 1.		
HMCAW49	974119	3098	216 - 569	12850	Gly-36 to Met-43, Asp-50 to Ser-58.	S0142: 1, S0344: 1 and H0522: 1.		

HMCAZ67	751804	3099	464 - 586	12851	Glu-8 to Asp-14, Lys-36 to Pro-41.	S0142: 2 and L0748: 1.	16	
HMCBI05	932146	3100	157 - 324	12852		S0142: 2		
HMCCA45	722027	3101	1 - 291	12853	Phe-41 to Ser-48.	S0142: 2		
HMCCB30	692830	3102	53 - 343	12854	Gln-72 to Gly-87.	S0142: 3		
HMCCB62	747136	3103	2 - 241	12855	Ala-1 to Pro-17, Leu-26 to Ala-33.	S0142: 2		
HMCCB78	773660	3104	1 - 303	12856	Pro-9 to Ala-21, Pro-39 to Gly-47.	S0142: 2		
HMCDB42	713051	3105	218 - 409	12857	Lys-14 to Ser-23, Glu-42 to Asp-50.	L0766: 2, L0776: 2, L0740: 2, S0134: 1, H0635: 1, L0370: 1, S0142: 1, L0792: 1, H0521: 1, H0522: 1, L0779: 1 and L0366: 1.		
HMCDM32	699249	3106	185 - 337	12858		H0306: 1 and S0142: 1.		
HMCDN22	895981	3107	1 - 627	12859	Gly-1 to Lys-9, Lys-15 to Gly-20, Arg-26 to Ala-36, Tyr-108 to Leu-113.	AR089: 2, AR061: 1 S0142: 1, L0747: 1 and H0423: 1.		
HMCDT92	974588	3108	1 - 192	12860	Gly-1 to Ile-17, Cys-32 to Gly-41, Asn-57 to Leu-62.	S0142: 3 and S0344: 1.		
HMCFA71	760034	3109	1 - 111	12861		S0344: 2	10q24-q25	157640, 167409, 174900, 180250, 186770, 236730, 271245, 278000, 278000, 600020, 600095, 600512, 601107, 601130, 602082, 602669, 602669
HMCFB22	963794	3110	2 - 217	12862		S0344: 2		
HMCFR51	725425	3111	2 - 331	12863	Ser-20 to Ala-25.	S0344: 1 and S0053: 1.		
HMCFW22	674074	3112	327 - 521	12864	Ser-14 to Cys-32, Pro-50 to Glu-65.	H0402: 1, H0580: 1, S0344: 1, L0794: 1 and S0052: 1.		
HMCGG31	697533	3113	206 - 349	12865	Glu-24 to Asp-40.	L0749: 2, S0140: 1, H0318:		

						1, H0271: 1, S0344: 1, L0761: 1, L0754: 1, L0780: 1, L0755: 1 and L0758: 1.		
HMCGJ36	708050	3114	55 - 162	12866		L0526: 2, H0580: 1 and S0344: 1.		
HMCGN29	690288	3115	1 - 126	12867		S0344: 2		
HMCGW54	846134	3116	196 - 351	12868		H0421: 2, S0344: 1 and L0439: 1.		
HMCGY77	753133	3117	1 - 402	12869	Gly-50 to Asn-56, Pro-67 to Leu-72.	AR061: 384, AR089: 164 H0063: 1 and S0344: 1.		
HMCHA04	927287	3118	231 - 464	12870	Gly-14 to Arg-24.	S0344: 1 and S0002: 1.		
HMCHE16	856332	3119	57 - 416	12871	Pro-28 to Cys-34.	S0344: 1 and H0521: 1.		
HMCHG76	769734	3120	1 - 216	12872	Ser-51 to Trp-57.	H0402: 1 and S0344: 1.		
HMCHK22	974585	3121	364 - 570	12873		S0344: 3		
HMCIA10	963791	3122	159 - 341	12874	Glu-37 to Lys-57.	S0344: 2		
HMCIA94	853999	3123	1 - 210	12875	Arg-30 to Glu-35, Lys-52 to Ser-61.	H0486: 2 and S0344: 1.		
HMCIK90	788596	3124	153 - 401	12876	Lys-24 to Gln-30, Gly-40 to Asn-46.	S0344: 1 and H0521: 1.		
HMCIS32	698541	3125	31 - 261	12877		S0344: 2		
HMCKC30	671952	3126	189 - 368	12878		H0264: 1 and S0344: 1.		
HMMAB49	462502	3127	1 - 204	12879		AR089: 53, AR061: 4 H0444: 2		
HMMAC10	964846	3128	100 - 237	12880		H0063: 1 and H0444: 1.		
HMMAC19	953580	3129	59 - 166	12881	Pro-18 to His-35.	H0444: 2 and L0526: 1.		
HMMAC79	577951	3130	301 - 456	12882	Lys-7 to Leu-12.	H0306: 1 and H0444: 1.		
HMMAD06	935734	3131	155 - 322	12883		H0444: 1 and H0445: 1.		
HMMAD35	964749	3132	220 - 393	12884		H0445: 2, L0607: 1 and H0444: 1.		
HMMAD40	666181	3133	88 - 225	12885	Glu-1 to Asn-13.	H0444: 2		
HMMAD58	891329	3134	27 - 155	12886		AR054: 1, AR050: 1, AR051: 0 H0402: 2 and H0444: 1.		
	971602	9570	1157 - 1558	19322	Lys-1 to Lys-13, Gln-39 to Glu-44, Arg-64 to Arg-79.			

HMMAE12	970892	3135	1 - 198	12887		H0444: 1 and H0543: 1.		
HMMAE43	715381	3136	48 - 218	12888		S0114: 1 and H0444: 1.		
HMMAF44	855916	3137	122 - 364	12889	Lys-24 to Arg-31, Lys-46 to Glu-54.	H0444: 2		
HMMAF70	577918	3138	252 - 386	12890	Ser-20 to Met-25.	L0754: 2, H0444: 2 and L0750: 1.		
HMMAF73	506275	3139	46 - 294	12891	Gly-57 to Trp-64.	H0444: 2		
HMMAH25	677861	3140	191 - 310	12892		H0444: 1 and H0445: 1.		
HMMAH45	674953	3141	83 - 3	12893	Phe-2 to Ala-10, Asn-12 to Lys-18.	H0271: 1, S0052: 1 and H0444: 1.		
HMMAI03	860715	3142	1 - 171	12894		S0052: 1 and H0444: 1.		
HMMAI56	734563	3143	3 - 215	12895		H0444: 2		
HMMAI61	718876	3144	297 - 479	12896	Arg-14 to Glu-26.	H0444: 2 and H0576: 1.		
HMMAJ18	666195	3145	195 - 314	12897		H0444: 1 and H0445: 1.		
HMMAL28	677446	3146	2 - 184	12898		H0090: 1 and H0444: 1.		
HMMAL63	744861	3147	286 - 435	12899	Cys-1 to Thr-10, Tyr-24 to Gly-35.	H0069: 1 and H0444: 1.		
HMMAP18	666199	3148	256 - 396	12900	Lys-25 to Val-32.	H0444: 2		
HMMAP45	717599	3149	169 - 423	12901	Tyr-24 to Gly-30, Pro-46 to Asn-54.	S0053: 1 and H0444: 1.		
HMMAP66	668827	3150	190 - 354	12902	His-7 to Asp-14.	S0114: 1 and H0444: 1.		
HMMAP72	671947	3151	256 - 372	12903	Lys-13 to Ala-20, Thr-30 to Gly-38.	H0305: 2, S0114: 1, H0589: 1, H0635: 1 and H0444: 1.		
HMMAQ04	739304	3152	2 - 427	12904	His-12 to Gly-25, Pro-51 to Arg-67, Pro-95 to Arg-110.	H0402: 1 and H0444: 1.		
HMMAQ15	659966	3153	3 - 197	12905	Thr-16 to Thr-24, Arg-30 to Pro-43.	L0658: 1, S0216: 1, L0438: 1, L0748: 1, L0439: 1 and H0444: 1.		
HMMAQ35	707273	3154	2 - 208	12906	Thr-29 to Asp-34.	H0402: 1 and H0444: 1.		
HMMAR75	919558	3155	121 - 288	12907		L0520: 1, L0532: 1, H0444: 1 and H0445: 1.		
HMMAS88	728019	3156	306 - 488	12908		H0444: 2		
HMMAS91	496192	3157	202 - 468	12909	Pro-47 to Ser-59, Arg-75 to Lys-81.	H0402: 1 and H0444: 1.		

HMMAT17	662705	3158	116 - 259	12910	Ser-4 to Ile-9.	H0444: 2		
HMMAT26	681416	3159	134 - 316	12911	Asn-8 to Gly-14.	H0271: 1, L0527: 1 and H0444: 1.		
HMMAT78	733239	3160	207 - 299	12912		H0318: 1 and H0444: 1.		
HMMAU10	964281	3161	155 - 334	12913	Asn-4 to Lys-12, Pro-48 to Ala-56.	H0444: 1 and H0423: 1.		
HMMAV35	707274	3162	1 - 219	12914	Gly-15 to Ala-21, Arg-27 to Val-35.	S0114: 1 and H0444: 1.		
HMMAV74	742642	3163	85 - 291	12915		H0444: 2		
HMMAV85	784221	3164	63 - 206	12916	Arg-8 to Thr-15, Ser-26 to Lys-37.	S0114: 1 and H0444: 1.		
HMMAV91	854043	3165	2 - 193	12917	His-4 to Arg-17, Pro-49 to Gln-58.	S0052: 2, H0402: 1 and H0444: 1.		
HMMBD12	866824	3166	121 - 369	12918	Gln-26 to Gly-33.	S0114: 1 and H0444: 1.		
HMMBD29	935775	3167	1 - 225	12919		H0305: 4 and H0444: 1.		
HMMBD33	702222	3168	253 - 417	12920		H0444: 2		
HMMBD79	490057	3169	4 - 231	12921		H0576: 1 and H0444: 1.		
HMMBD81	728362	3170	178 - 270	12922	Gln-22 to Trp-31.	S0114: 1 and H0444: 1.		
HMMBH76	959722	3171	82 - 213	12923	Gly-39 to Ser-44.	H0444: 2, H0402: 1 and H0421: 1.		
HMMBI50	868199	3172	129 - 401	12924		H0444: 1 and H0543: 1.		
HMMBJ26	681407	3173	94 - 267	12925	Thr-1 to Ala-10.	H0255: 1, L0748: 1 and H0444: 1.		
HMMBJ31	697735	3174	19 - 156	12926	Pro-10 to Phe-15.	H0444: 2		
HMMBM13	577508	3175	75 - 338	12927		S0114: 1, H0402: 1, L0783: 1, L0758: 1 and H0444: 1.		
HMMBM24	676996	3176	116 - 316	12928		L0748: 2, S0002: 1 and H0444: 1.		
HMMBM31	855965	3177	214 - 384	12929	Lys-1 to Lys-9, Gln-36 to Trp-42.	H0486: 1 and H0444: 1.		
HMMBM54	729350	3178	3 - 173	12930	Leu-14 to Leu-20, Ser-42 to Asn-51.	H0444: 2		
HMMBM77	771979	3179	142 - 360	12931	Pro-8 to His-18, Arg-35 to His-42, Pro-49 to His-56, Pro-64 to Ser-69.	H0444: 2		

HMMBO43	657400	3180	104 - 307	12932	Pro-51 to Arg-58.	S0052: 1 and H0444: 1.		
HMMBO46	856831	3181	211 - 489	12933	Gly-3 to Gln-8, Pro-67 to Lys-72.	H0444: 2, H0255: 1 and L0783: 1.		
HMMBP10	964268	3182	109 - 351	12934		H0444: 2 and L0471: 1.		
HMMBP22	674272	3183	136 - 306	12935	Lys-13 to Asp-18, Ser-32 to Ser-37.	H0444: 2		
HMMBP27	682856	3184	102 - 323	12936		H0556: 1, L0754: 1 and H0444: 1.		
HMMBQ48	721466	3185	3 - 134	12937		H0116: 1 and H0444: 1.		
HMMBR33	702221	3186	259 - 549	12938	Lys-1 to Leu-6, Phe-19 to Gly-25, Leu-33 to Ser-42, Ser-54 to Phe-80.	H0341: 1 and H0444: 1.		
HMMBR77	855942	3187	29 - 178	12939		H0444: 2, H0637: 1 and L0662: 1.		
HMMBR91	757047	3188	7 - 129	12940		H0444: 2		
HMMBR92	791274	3189	26 - 178	12941	Pro-22 to His-27.	H0444: 2		
HMMBS41	711733	3190	8 - 211	12942	Val-17 to Asn-24.	H0402: 1 and H0444: 1.		
HMMBS61	741656	3191	3 - 227	12943	Gly-6 to Asn-33.	S0140: 1 and H0444: 1.		
HMMBT27	682325	3192	174 - 308	12944	Ala-1 to Ser-6.	H0318: 1 and H0444: 1.		
HMMBU27	716049	3193	228 - 368	12945		S0114: 1 and H0444: 1.		
HMMBU75	490083	3194	49 - 363	12946	Ala-21 to Glu-28.	S0053: 1 and H0444: 1.		
HMMBU78	773426	3195	493 - 708	12947		L0748: 3, H0444: 1 and H0445: 1.		
HMMBV17	662684	3196	2 - 193	12948	Pro-22 to Asn-37, Ser-51 to Asn-56.	H0421: 1 and H0444: 1.		
HMMBV53	727572	3197	13 - 138	12949		H0444: 1 and H0445: 1.		
HMMBV71	490078	3198	198 - 383	12950	Glu-17 to Gly-31.	S0116: 1 and H0444: 1.		
HMMBX63	729268	3199	53 - 214	12951	Leu-8 to Ala-16.	H0583: 1 and H0444: 1.		
HMMBZ91	753799	3200	265 - 396	12952		H0264: 1 and H0444: 1.		
HMMCA43	715085	3201	56 - 193	12953		S0052: 1, S0428: 1 and H0444: 1.		
HMMCB67	735293	3202	44 - 250	12954	Lys-4 to Trp-13, Cys-23 to Pro-31.	H0444: 2, H0402: 1, H0264: 1 and L0748: 1.		
HMMCC09	625368	3203	110 - 364	12955	Trp-7 to Glu-14,	H0444: 2		

					Arg-25 to Gly-31, Ala-33 to Arg-42, Phe-58 to Gly-68.			
HMMCD21	670651	3204	59 - 196	12956		H0265: 1 and H0444: 1.		
HMMCE16	577388	3205	13 - 174	12957	Pro-6 to Gly-11.	H0444: 2 and H0271: 1.		
HMMCE26	935148	3206	306 - 497	12958		L0748: 1, H0444: 1, H0445: 1 and H0422: 1.		
HMMCF94	913661	3207	235 - 396	12959		S0114: 1 and H0444: 1.		
HMMCH04	944069	3208	3 - 338	12960	Leu-1 to Arg-17, Pro-30 to Pro-35, Ser-44 to Thr-50, Arg-81 to Ala-90.	AR089: 54, AR061: 5 L0717: 1, H0581: 1, L0752: 1 and H0444: 1.		
HMMCI03	923771	3209	181 - 363	12961		H0488: 1, H0521: 1 and H0444: 1.		
HMMCI43	864098	3210	268 - 444	12962	Asn-7 to Gln-13.	H0318: 1, H0576: 1 and H0444: 1.		
HMMCI67	587819	3211	215 - 376	12963		H0486: 1, H0521: 1 and H0444: 1.		
HMMCJ83	855918	3212	205 - 318	12964	Ser-8 to Phe-13.	H0402: 1 and H0444: 1.		
HMMCJ93	708060	3213	247 - 528	12965	His-15 to Gln-22, Ser-37 to Glu-43.	H0444: 2		
HMMCK81	666792	3214	73 - 360	12966		H0444: 2		
HMMCN36	919484	3215	254 - 475	12967	Ser-23 to Cys-40.	H0444: 2		
HMOAC95	677110	3216	56 - 220	12968	Pro-49 to Ala-54.	S0278: 1 and H0191: 1.		
HMPAA21	670114	3217	544 - 407	12969		H0060: 2, S0116: 1 and L0748: 1.		
HMPAE62	754152	3218	3 - 122	12970	Thr-23 to Trp-40.	H0060: 1 and H0444: 1.		
HMPAP52	709621	3219	176 - 277	12971	Phe-2 to Ser-8.	H0060: 2		
HMPBA34	705509	3220	275 - 442	12972		H0061: 1 and H0271: 1.		
HMPBB11	855911	3221	125 - 271	12973	Glu-19 to Tyr-25.	H0061: 2		
HMPTA49	723299	3222	211 - 303	12974	Ser-2 to Gly-7, Lys-22 to Gln-27.	H0109: 1 and S0002: 1.		
HMPTE27	684607	3223	240 - 359	12975	Glu-18 to Asn-27, Asn-35 to Leu-40.	H0109: 2		
HMPTG84	954383	3224	2 - 154	12976		H0109: 2		
HMPTI69	932799	3225	211 - 369	12977		H0109: 2		

HMQAB40	712805	3226	5 - 211	12978		L0777: 2, H0250: 1, H0521: 1 and L0747: 1.	
HMQAG45	723493	3227	153 - 359	12979		H0250: 2	
HMQAL95	684917	3228	90 - 317	12980	His-23 to Arg-30.	H0250: 9	
HMQAO34	706341	3229	12 - 194	12981		H0250: 2	
HMQAP31	825480	3230	45 - 185	12982		H0250: 2	
HMQAS25	923515	3231	2 - 340	12983		H0063: 2 and H0250: 1.	
HMQAU20	384780	3232	135 - 263	12984		H0250: 2 and L0748: 1.	
HMQAX65	856318	3233	2 - 250	12985	Val-33 to Phe-40, Arg-43 to Thr-50.	H0250: 7	
HMQBD30	714031	3234	3 - 335	12986		H0250: 3	
HMQBH12	825460	3235	49 - 186	12987		H0250: 2 and H0581: 1.	
HMQBL13	723212	3236	3 - 344	12988	Gln-1 to Tyr-10, Asn-59 to Arg-64, Lys-71 to Gln-79.	H0250: 2	
HMQBL17	664904	3237	2 - 199	12989	Pro-3 to Gln-9, Gln-32 to Cys-50, Glu-58 to Leu-63.	H0250: 3	
HMQBL54	708075	3238	191 - 304	12990	Ser-1 to Trp-6.	H0250: 2 and H0556: 1.	
HMQBM27	855902	3239	58 - 270	12991	Thr-2 to Arg-33.	H0250: 3	
HMQBM59	708073	3240	124 - 345	12992	Asn-6 to Gly-15.	H0250: 2	
HMQBN41	683723	3241	155 - 262	12993		H0250: 2	
HMQBO17	720569	3242	156 - 305	12994	Gln-1 to Ala-14, Lys-21 to Ile-28.	H0250: 2	
HMQBP18	707279	3243	136 - 369	12995	Glu-11 to His-19, Lys-31 to Pro-39.	H0250: 4	
HMQBP26	684887	3244	48 - 182	12996		H0250: 4, L0527: 1 and L0747: 1.	
HMQBP54	855900	3245	108 - 335	12997		H0250: 3	
HMQBT65	708065	3246	173 - 298	12998	Gln-12 to Leu-20.	H0250: 3 and L0665: 1.	
HMQBU96	765162	3247	2 - 244	12999	Ala-1 to Gly-19.	H0250: 2	
HMQBW05	932509	3248	29 - 160	13000		H0250: 1 and H0318: 1.	
HMQBW76	954587	3249	2 - 217	13001	Glu-2 to His-7.	H0161: 3 and H0250: 2.	
HMQBX07	954058	3250	34 - 267	13002	Pro-8 to Ala-16.	H0250: 3	
HMQBX35	707280	3251	57 - 365	13003	Pro-22 to Glu-27,	H0250: 2	

					Ala-33 to Pro-38, Pro-58 to Gly-63, His-89 to Pro-94.			
HMQBX74	932510	3252	135 - 73	13004	Leu-2 to Asp-14.	H0250: 3		
HMQBY10	968348	3253	178 - 297	13005		H0250: 3		
HMQBY34	706338	3254	3 - 131	13006	Leu-1 to Cys-7, His-10 to Tyr-15.	H0250: 2		
HMQCC67	740625	3255	155 - 253	13007	Lys-1 to Cys-9.	H0250: 2		
HMQCK09	384771	3256	31 - 177	13008		H0250: 1 and H0179: 1.		
HMQCO77	839604	3257	3 - 287	13009	His-1 to Ser-6, Arg-61 to Thr-66.	H0250: 1 and H0445: 1.		
HMQCV51	725828	3258	249 - 359	13010		H0265: 1 and H0250: 1.		
HMQDA84	783174	3259	150 - 257	13011	Gln-25 to Asp-30.	H0250: 2		
HMQDC34	855890	3260	2 - 313	13012	Leu-16 to Arg-40, Glu-53 to Ala-59.	H0250: 1 and H0090: 1.		
HMQDC96	765810	3261	57 - 200	13013	Pro-14 to Ser-19.	H0250: 2		
HMQDD41	575536	3262	203 - 361	13014		S0114: 1 and H0250: 1.		
HMQDE85	963366	3263	3 - 296	13015		H0250: 1 and H0581: 1.		
HMQDN16	712588	3264	62 - 319	13016		S0114: 1 and H0250: 1.		
HMQDN77	772436	3265	192 - 419	13017	Asn-1 to Gly-10, Asn-13 to Thr-28, Gly-38 to Arg-53.	H0250: 2		
HMQDQ84	783176	3266	43 - 216	13018		H0556: 1, H0250: 1, L0766: 1, L0519: 1 and L0779: 1.		
HMQDZ19	940694	3267	3 - 167	13019	Gln-1 to Gly-13.	H0271: 2 and H0250: 1.		
HMRAD49	868185	3268	3 - 218	13020		H0189: 1 and S0052: 1.		
HMRAD74	765975	3269	343 - 519	13021	Leu-41 to Ala-49.	H0305: 2, H0589: 1 and H0189: 1.		
HMSAC03	960949	3270	2 - 145	13022	Asp-27 to Pro-36.	S0002: 3		
HMSAH89	935429	3271	1 - 144	13023		S0002: 2 and L0740: 1.		
HMSAI08	960482	3272	39 - 224	13024	Arg-5 to Glu-11, Ser-34 to Val-43.	S0002: 1 and H0543: 1.		
HMSAI44	715726	3273	160 - 345	13025		S0002: 2, L0794: 2, L0791: 2, L0803: 1, L0792: 1 and L0665: 1.		

HMSAO46	720686	3274	204 - 368	13026	Pro-26 to Cys-31.	S0002: 2		
HMSAP87	383902	3275	1 - 153	13027		S0002: 2		
HMSAQ64	747120	3276	3 - 167	13028		L0750: 3, L0551: 2, L0748: 2, H0486: 1, L0455: 1, H0264: 1, S0002: 1, L0764: 1, L0791: 1 and L0740: 1.		
HMSAS62	754156	3277	245 - 358	13029		S0002: 2		
HMSAX08	960446	3278	84 - 233	13030		S0002: 3		
HMSAX13	961032	3279	140 - 334	13031		S0002: 2		
HMSAX31	698439	3280	2 - 160	13032	Asn-18 to Gln-23, Glu-30 to Asp-36.	S0002: 2		
HMSAX32	702992	3281	56 - 247	13033	Arg-4 to Cys-10, Val-26 to Ser-34, His-49 to Ser-58.	S0002: 3		
HMSAX33	727443	3282	257 - 463	13034	Gln-34 to Glu-39.	S0002: 2		
HMSAX85	953708	3283	26 - 160	13035	Asn-15 to Leu-22, Arg-39 to Gly-44.	S0002: 3, H0272: 1 and S0426: 1.		
HMSAZ07	855878	3284	2 - 199	13036	Gly-33 to Gly-43.	S0002: 2		
HMSBB19	707489	3285	172 - 378	13037	Leu-2 to Ile-13.	L0766: 4, L0743: 2, H0457: 1, S0002: 1, L0761: 1 and L0775: 1.		
HMSBB44	715738	3286	190 - 336	13038		S0002: 2		
HMSBF59	722005	3287	43 - 237	13039	Thr-53 to Trp-58.	S0002: 3		
HMSBF84	739001	3288	16 - 102	13040	Gln-7 to Phe-14, Pro-23 to Arg-29.	H0591: 1 and S0002: 1.		
HMSBH79	683595	3289	82 - 252	13041		S0002: 3		
HMSBI72	925288	3290	149 - 268	13042		S0002: 2		
HMSBM43	510964	3291	176 - 3	13043	Pro-15 to His-27, Asp-35 to Glu-47.	H0265: 1, S0002: 1 and S0052: 1.		
	855873	9571	221 - 487	19323	Val-2 to Gln-14, Trp-29 to Ser-36.			
HMSBM81	383978	3292	32 - 271	13044	Arg-8 to Arg-18.	S0002: 2		
HMSBN71	766408	3293	15 - 176	13045		S0002: 2		
HMSBO55	715684	3294	2 - 148	13046	Lys-1 to Asn-10, Lys-44 to Arg-49.	S0002: 2 and L0766: 2.		
HMSBP46	719425	3295	28 - 138	13047		S0002: 2		

HMSBP80	855871	3296	153 - 386	13048	Thr-1 to Arg-7.	AR054: 18, AR051: 11, AR050: 1 S0002: 10		
HMSBQ93	745862	3297	232 - 420	13049		S0002: 2		
HMSBS51	708662	3298	167 - 307	13050		S0002: 2		
HMSBS63	926833	3299	214 - 399	13051		H0271: 1, S0002: 1 and S0426: 1.		
HMSBS86	785804	3300	1 - 237	13052	Gln-25 to Gly-30, Ser-51 to Gly-59.	S0002: 2		
HMSBU22	677327	3301	1 - 171	13053		S0002: 2		
HMSBU68	709231	3302	193 - 306	13054		S0002: 2		
HMSBV28	970579	3303	97 - 270	13055	Asn-26 to Tyr-35.	S0002: 2		
HMSBX38	761392	3304	121 - 324	13056		S0002: 2 and L0748: 1.		
HMSBX59	558203	3305	2 - 211	13057		S0002: 2, L0783: 1 and L0809: 1.		
HMSBZ69	866997	3306	2 - 697	13058	Ala-14 to Ser-19.	S0002: 2, H0580: 1, L0803: 1 and L0749: 1.		
HMSCA33	702821	3307	89 - 397	13059	Ser-1 to Asn-8, Glu-83 to Ser-90.	H0641: 2, S0002: 2, L0766: 2, L0438: 2, L0439: 2, H0657: 1, H0638: 1, H0637: 1, L0763: 1, L0768: 1, L0794: 1, L0655: 1, H0521: 1, H0522: 1, L0779: 1, L0777: 1 and S0026: 1.		
HMSCB10	968514	3308	43 - 198	13060	Ser-25 to Arg-32.	H0265: 1, H0581: 1 and S0002: 1.		
HMSCD14	924890	3309	1 - 138	13061	Pro-11 to Gly-18.	S0114: 1 and S0002: 1.		
HMSCD15	918133	3310	237 - 635	13062		AR089: 1, AR061: 1 S0002: 2 and L0766: 1.		
HMSCD45	707281	3311	144 - 236	13063	Ile-1 to Glu-6.	S0002: 2		
HMSCE07	954242	3312	21 - 236	13064	Arg-32 to Gly-38.	S0002: 2 and S0426: 1.		
HMSCE37	524245	3313	63 - 185	13065	Thr-1 to Leu-6, Asn-19 to Arg-28.	S0002: 2		
HMSCF41	951821	3314	532 - 753	13066		H0265: 1, H0556: 1, H0657: 1, S0002: 1, L0761: 1 and H0445: 1.		

HMSCF54	731011	3315	108 - 218	13067	Lys-13 to Glu-24.	S0002: 1 and H0522: 1.		
HMSCF58	747250	3316	1 - 87	13068	His-13 to Gly-23.	S0002: 2		
HMSCI26	530239	3317	499 - 663	13069	Arg-30 to Glu-37.	S0114: 1, S0002: 1 and S0053: 1.		
HMSCK06	960601	3318	152 - 358	13070		S0114: 1 and S0002: 1.		
HMSCK17	717703	3319	121 - 420	13071		S0114: 2, H0556: 1, S0134: 1, H0255: 1, H0069: 1, H0625: 1 and S0002: 1.		
HMSCK38	967576	3320	416 - 664	13072		H0069: 1, S0002: 1 and S0426: 1.		
HMSCL01	921754	3321	3 - 146	13073	Pro-23 to Tyr-30.	S0002: 2		
HMSCM10	926836	3322	14 - 253	13074	Gly-5 to Ser-11, Gly-35 to Ile-42.	S0002: 1, S0426: 1, L0529: 1, L0543: 1 and L0748: 1.		
HMSCM95	884019	3323	44 - 124	13075		S0002: 2		
HMSCO18	917009	3324	218 - 451	13076	His-36 to Ser-55, Thr-61 to Thr-67.	S0002: 2 and S0426: 2.		
HMSCO39	709592	3325	51 - 170	13077	Thr-11 to Ser-29, Asp-34 to Tyr-40.	S0002: 2		
HMSCO60	739685	3326	124 - 291	13078		S0002: 2 and L0599: 1.		
HMSCO70	879436	3327	8 - 370	13079	Pro-65 to Asp-72.	H0576: 2, S0002: 1 and L0599: 1.		
HMSCR39	601504	3328	454 - 248	13080		H0402: 1 and S0002: 1.		
HMSCR82	806176	3329	169 - 264	13081	Asp-5 to Ser-11, Cys-25 to Ser-32.	S0002: 2		
HMSCU35	725513	3330	1 - 570	13082	Asn-1 to Ala-14, Pro-16 to Gln-23, Arg-29 to Asn-54.	S0002: 2 and S0426: 1.		
HMSCY29	703105	3331	197 - 334	13083		S0002: 2 and L0774: 2.		
HMSCY91	789306	3332	434 - 195	13084	Lys-1 to Pro-8, Ser-13 to Ala-19.	H0580: 1 and S0002: 1.		
HMSCZ51	724839	3333	3 - 125	13085		S0002: 2		
HMSDA03	881563	3334	91 - 345	13086		S0002: 2 and H0341: 1.		
HMSDB74	765933	3335	74 - 271	13087	Val-23 to Ile-37.	S0114: 1 and S0002: 1.		
HMSDD80	503967	3336	149 - 577	13088	Ala-36 to Trp-54, Lys-72 to Leu-82.	L0748: 3, S0002: 2 and L0740: 2.		
HMSDF01	921672	3337	138 - 317	13089		S0002: 2		

HMSDG77	708078	3338	18 - 353	13090	Ser-15 to Ser-25, Gly-31 to Ala-39, His-76 to Glu-90.	S0002: 2		
HMSDK32	416928	3339	51 - 266	13091		S0002: 2		
HMSDM29	703075	3340	27 - 164	13092		S0002: 2		
HMSDP23	583670	3341	106 - 324	13093		H0264: 2, S0002: 1 and H0543: 1.		
HMSDQ33	702772	3342	1 - 240	13094	Ala-7 to Ala-13, Asp-48 to Gln-57.	S0002: 2 and L0700: 1.		
HMSDR06	954682	3343	2 - 127	13095	Asp-6 to Phe-12.	S0002: 2		
HMSDR55	732443	3344	76 - 198	13096		S0002: 2		
HMSDU43	868183	3345	290 - 3	13097	Leu-6 to Leu-13, Gln-19 to Ser-31, Thr-37 to Leu-43, Lys-87 to Lys-96.	S0002: 2, H0305: 1, L0774: 1 and L0779: 1.		
HMSDU73	753010	3346	3 - 128	13098		H0486: 1 and S0002: 1.		
HMSDV49	722194	3347	23 - 142	13099	Pro-26 to Gly-31.	S0002: 2		
HMSEG37	708656	3348	1 - 216	13100		S0002: 2, L0790: 1 and L0438: 1.		
HMSEM59	708076	3349	2 - 55	13101	Lys-7 to Lys-13.	S0002: 2		
HMSEM80	718087	3350	54 - 170	13102		S0002: 2		
HMSEO23	676369	3351	236 - 406	13103	His-25 to Phe-33, Ser-36 to Asn-41.	S0002: 2		
HMSEU01	921628	3352	11 - 178	13104	Glu-1 to Ser-8.	S0002: 2		
HMSFH05	932219	3353	1 - 165	13105	Ser-13 to Gly-23.	S0002: 2		
HMSFH21	671133	3354	46 - 288	13106	Lys-18 to Glu-35, Glu-57 to Gly-62, Gly-73 to Thr-78.	S0002: 3		
HMSFH24	855826	3355	88 - 258	13107		S0002: 2		
HMSFH27	682204	3356	30 - 197	13108	Leu-1 to Gln-8, Glu-11 to Ala-22, Leu-28 to Asp-39.	S0002: 2		
HMSFH29	689857	3357	1 - 156	13109		S0002: 2		
HMSFH31	583757	3358	354 - 1	13110		S0002: 2 and S0114: 1.		
	693702	9572	88 - 396	19324				
HMSFH34	706349	3359	24 - 194	13111		S0002: 2		

HMSFH39	705586	3360	168 - 269	13112	Glu-7 to Lys-12.	S0002: 4 and L0731: 1.		
HMSFH59	739415	3361	92 - 214	13113	Ser-5 to Lys-10.	S0002: 2		
HMSFH73	764554	3362	87 - 182	13114		S0002: 2		
HMSFH79	775318	3363	2 - 220	13115		S0002: 3		
HMSFH83	780301	3364	1 - 198	13116	Leu-54 to Asp-60.	S0002: 2		
HMSFK32	671136	3365	125 - 241	13117		S0002: 2		
HMSFL10	968061	3366	63 - 269	13118	Thr-14 to Trp-25, Arg-56 to Cys-69.	S0002: 2		
HMSFL41	934139	3367	289 - 471	13119		S0002: 2, S0426: 1, L0438: 1 and H0543: 1.		
HMSFL49	683406	3368	79 - 300	13120	Ser-24 to Cys-29, Asp-35 to Arg-50, Glu-61 to Asp-69.	S0002: 2		
HMSFN48	697991	3369	285 - 458	13121		S0002: 3 and H0422: 1.		
HMSFQ48	721795	3370	3 - 323	13122	Glu-18 to Phe-24, Trp-36 to Arg-44, Gly-62 to Trp-71, His-73 to Asn-79.	S0002: 3, H0179: 1, L0645: 1, S0428: 1 and H0444: 1.		
HMSFQ69	657538	3371	68 - 235	13123	Glu-9 to Gln-14, Arg-41 to Met-47, Glu-49 to Arg-54.	S0426: 2, S0002: 1, L0770: 1 and S0052: 1.		
HMSFR29	693440	3372	43 - 165	13124	Thr-1 to Asn-7, Tyr-12 to Ser-22.	S0114: 1 and S0002: 1.		
HMSFR69	738588	3373	267 - 34	13125	Phe-3 to Pro-24.	S0002: 3		
HMSFR71	760517	3374	129 - 212	13126		S0002: 2		
HMSFR92	861344	3375	275 - 463	13127		S0002: 2 and S0426: 2.		
HMSFS59	739420	3376	75 - 284	13128	Lys-10 to Tyr-17.	S0002: 2		
HMSFS69	757687	3377	2 - 157	13129	Gly-12 to Ala-18.	S0002: 3		
HMSFT23	855812	3378	1 - 240	13130	Glu-38 to Gly-51.	S0002: 2		
HMSFT52	727302	3379	50 - 409	13131	Glu-7 to Gln-15, Gly-35 to Ser-44, Arg-84 to Lys-91.	H0087: 1, S0002: 1 and L0748: 1.	22q11.21	123620, 151410, 600850
HMSFT73	761647	3380	182 - 337	13132		S0002: 2 and H0581: 1.		
HMSFW13	917020	3381	3 - 221	13133		S0002: 2		
HMSFX01	917021	3382	225 - 428	13134	Cys-1 to Ser-6.	S0002: 4 and L0753: 1.		

HMSFX08	959784	3383	73 - 198	13135	Leu-34 to Gln-42.	S0002: 1 and S0426: 1.		
HMSFY49	574906	3384	2 - 166	13136	Ser-15 to Phe-20.	S0002: 3 and S0426: 1.		
HMSFY70	757338	3385	50 - 142	13137	Leu-3 to Asn-11.	S0002: 3		
HMSFZ04	615473	3386	3 - 134	13138		H0318: 1 and S0002: 1.		
HMSGA34	706355	3387	16 - 192	13139		S0002: 2		
HMSGA41	712490	3388	300 - 470	13140		S0002: 2 and S0218: 1.		
HMSGB07	953715	3389	135 - 344	13141	Pro-10 to Lys-18.	S0002: 2		
HMSGC69	757337	3390	49 - 183	13142		S0002: 2		
HMSGC76	767661	3391	1 - 357	13143	Pro-21 to Ala-30, Lys-32 to Leu-46.	S0002: 2		
HMSGD02	920525	3392	232 - 372	13144	Gln-1 to Phe-8, Leu-11 to Pro-17, Leu-37 to Trp-44.	S0114: 1 and S0002: 1.		
HMSGD15	959468	3393	95 - 346	13145	Gln-32 to Phe-38, Trp-50 to Ala-60.	S0002: 2		
HMSGH49	712123	3394	260 - 406	13146		H0580: 1 and S0002: 1.		
HMSGI42	712994	3395	132 - 353	13147		S0002: 2		
HMSGK16	861329	3396	151 - 594	13148	Arg-46 to Gln-71, Pro-83 to Pro-88, Gly-107 to Glu-122, Lys-138 to Arg-148.	S0002: 3, S0426: 2, H0580: 1, H0486: 1 and L0748: 1.		
HMSGK82	778875	3397	35 - 184	13149	Met-14 to Asn-24.	S0002: 1 and H0521: 1.		
HMSGL27	638097	3398	213 - 527	13150	Ser-96 to Ala-102.	AR051: 35, AR054: 29, AR089: 24, AR050: 20, AR061: 7 S0002: 1, L0766: 1 and H0445: 1.		
	855759	9573	318 - 127	19325	Cys-8 to Gly-28, Pro-31 to Glu-36.			
HMSGP45	699243	3399	219 - 440	13151	Gln-1 to Glu-7.	S0002: 2 and H0179: 1.		
HMSGP49	723131	3400	3 - 254	13152	Pro-1 to Ser-8, Tyr-26 to Ser-32.	S0002: 3		
HMSGP73	925385	3401	63 - 974	13153	Asp-48 to Met-55, Cys-59 to Ala-65, Leu-72 to Ser-87, Thr-104 to Phe-115.	L0766: 3, H0179: 1, S0002: 1, L0761: 1 and L0786: 1.		

HMSGQ30	692880	3402	24 - 242	13154		S0002: 2		
HMSGQ57	733869	3403	143 - 277	13155		S0002: 2 and H0271: 1.		
HMSGR88	575241	3404	1 - 204	13156		S0002: 2		
HMSGT45	722069	3405	128 - 253	13157		H0179: 1 and S0002: 1.		
HMSGU52	727300	3406	2 - 154	13158	Pro-29 to Lys-38.	S0002: 2		
HMSGU76	677512	3407	201 - 296	13159	Lys-10 to Cys-17, Gln-20 to Gly-27.	S0002: 2		
HMSGU89	963497	3408	7 - 252	13160	Leu-2 to Pro-7.	S0002: 1 and H0521: 1.		
HMSGV47	920116	3409	151 - 297	13161		S0002: 2 and L0523: 1.		
HMSGW16	767621	3410	187 - 357	13162		S0002: 3		
HMSGX02	920511	3411	84 - 224	13163	Gly-8 to Leu-22.	S0002: 2		
HMSGX12	792437	3412	3 - 137	13164	Glu-1 to Ala-8.	H0638: 1, S0142: 1 and S0002: 1.		
HMSGX14	871492	3413	19 - 171	13165	Lys-41 to Thr-50.	AR089: 14, AR061: 5 S0002: 2 and S0052: 2.		
HMSGX43	715425	3414	12 - 149	13166	Asp-37 to Phe-46.	S0002: 2		
HMSHA04	757509	3415	118 - 249	13167		S0002: 2		
HMSHA37	708660	3416	239 - 343	13168	Tyr-30 to Pro-35.	S0002: 2		
HMSHB10	964651	3417	142 - 378	13169		S0002: 2		
HMSHB14	657543	3418	3 - 269	13170	Glu-69 to Gly-80, Val-83 to His-89.	H0318: 1 and S0002: 1.		
HMSHC94	960196	3419	3 - 245	13171	Cys-27 to Ala-34.	S0002: 2		
HMSHD50	724397	3420	1 - 213	13172	Lys-7 to Tyr-27, Phe-36 to Ser-43, Pro-53 to Glu-59, Asn-65 to Trp-71.	S0002: 2		
HMSHE51	725692	3421	269 - 361	13173		S0002: 2		
HMSHE55	923378	3422	2 - 445	13174	Pro-42 to Cys-48, Ala-69 to Leu-97, Gly-103 to Asn-108.	S0114: 1, S0134: 1, S0344: 1 and S0002: 1.		
HMSHG24	676545	3423	3 - 362	13175	Cys-9 to Gly-21, Gln-35 to Arg-41.	S0002: 1 and S0052: 1.		
HMSHI54	920119	3424	3 - 257	13176	Pro-35 to Phe-43, Glu-62 to His-67, Arg-79 to Leu-84.	S0002: 2		

HMSHI94	967167	3425	331 - 591	13177	Gln-20 to Gly-35, Val-43 to Thr-51, Phe-70 to Gly-77.	AR089: 3, AR061: 1 H0271: 1, S0002: 1 and L0766: 1.	1p35-p34	118210, 120550, 120570, 120575, 121800, 130500, 133200, 138140, 138971, 168360, 171760, 171760, 172411, 176100, 176100, 178300, 185470, 230000, 230350, 255800, 602771
HMSHK14	920106	3426	101 - 271	13178		S0002: 2		
HMSHL09	789229	3427	1 - 171	13179		H0264: 1 and S0002: 1.		
HMSHL18	690655	3428	2 - 151	13180		S0002: 3, L0766: 3, L0779: 2, L0664: 1 and L0755: 1.		
HMSHL85	773811	3429	124 - 252	13181	Lys-7 to Lys-13.	S0002: 2		
HMSHM28	855792	3430	335 - 478	13182	Pro-43 to Ala-48.	S0002: 2 and L0759: 1.		
HMSHO64	746582	3431	1 - 411	13183	Ser-11 to Ser-21, Ser-84 to Ala-89, Pro-98 to Arg-107.	AR089: 2, AR061: 2 S0002: 2		
HMSHP08	868170	3432	100 - 378	13184		S0002: 2		
HMSHQ07	953389	3433	292 - 447	13185		S0002: 1 and S0426: 1.		
HMSHR29	924813	3434	2 - 361	13186	Arg-23 to Arg-34, Pro-43 to Ala-51, Asn-85 to Val-90.	H0318: 1 and S0002: 1.		
HMSHR64	746587	3435	184 - 291	13187		S0002: 2		
HMSHT10	964647	3436	28 - 336	13188	Asp-26 to Asp-32, Gly-67 to Pro-72.	S0002: 2		
HMSHT46	959516	3437	59 - 193	13189		S0052: 6 and S0002: 1.		
HMSHU10	964646	3438	213 - 413	13190	Lys-16 to His-25, Leu-27 to His-32.	S0002: 1 and S0426: 1.		
HMSHU55	731775	3439	28 - 519	13191	Ser-6 to Arg-11, Phe-25 to Thr-36, Val-54 to Arg-59, Pro-70 to Asn-80, Arg-106 to Asp-115,	H0264: 1 and S0002: 1.		

					Gly-125 to Ala-132.			
HMSHV09	731740	3440	169 - 324	13192	Asp-25 to Ser-30.	S0002: 2		
HMSHV44	716596	3441	191 - 496	13193	Asp-15 to Lys-22, Arg-28 to Ile-35.	S0002: 1, S0426: 1 and L0748: 1.		
HMSHW22	855779	3442	159 - 344	13194	Arg-18 to Gly-27.	S0002: 2		
HMSHW84	783036	3443	69 - 191	13195		H0087: 1 and S0002: 1.		
HMSHW93	792302	3444	132 - 287	13196		S0002: 1, S0426: 1 and L0754: 1.		
HMSHY07	953331	3445	1 - 147	13197	Tyr-21 to Gly-28.	S0002: 2		
HMSHZ03	924136	3446	2 - 262	13198	Arg-1 to Leu-17, Pro-40 to Gly-48, Ala-64 to Gln-74.	S0002: 1 and S0426: 1.		
HMSHZ56	733386	3447	127 - 315	13199	Gly-1 to Lys-11, Ser-38 to Leu-44.	S0002: 2		
HMSIA12	948521	3448	3 - 212	13200	Asp-1 to Arg-9, Pro-15 to Pro-24, Ala-30 to Ser-38, Pro-48 to Gln-59.	S0002: 1 and S0426: 1.		
HMSIB73	578777	3449	252 - 416	13201		S0142: 2 and S0002: 1.		
HMSIB86	785493	3450	64 - 468	13202	Ser-42 to Cys-49, Thr-53 to Gly-60.	S0002: 2		
HMSIC37	685586	3451	35 - 226	13203	Arg-3 to Asp-9.	S0002: 2		
HMSIC72	740365	3452	245 - 364	13204	Glu-9 to Gly-14.	S0002: 2		
HMSID81	774047	3453	2 - 454	13205		S0002: 6		
HMSIE11	967013	3454	58 - 138	13206		S0212: 1 and S0002: 1.		
HMSIE52	727146	3455	115 - 321	13207	Ser-9 to Ser-14, Lys-17 to Asn-28, Leu-32 to Asn-37, Glu-44 to Thr-50.	S0002: 2		
HMSIG74	725842	3456	183 - 308	13208		L0748: 2, H0083: 1 and S0002: 1.		
HMSII81	385937	3457	36 - 191	13209		S0002: 2		
HMSIJ85	916552	3458	2 - 151	13210		H0402: 1 and S0002: 1.		
HMSIN64	963441	3459	2 - 262	13211	Thr-18 to Asp-27, Pro-37 to Arg-61.	S0426: 2 and S0002: 1.		
HMSIN75	728670	3460	66 - 305	13212		S0002: 2		

HMSIO61	741811	3461	200 - 394	13213	Leu-8 to Gly-13, Arg-19 to Glu-24, Arg-36 to Gly-43, Gln-45 to Leu-52.	S0002: 2		
HMSIO76	767680	3462	111 - 410	13214		S0002: 2		
HMSIP13	792379	3463	193 - 465	13215	Ile-32 to Ser-37, Lys-55 to His-64.	H0457: 5, S0002: 1 and H0436: 1.		
HMSIP59	739275	3464	1 - 294	13216		H0265: 1 and S0002: 1.		
HMSIS02	920078	3465	330 - 1	13217	Asn-1 to Asn-7, Pro-11 to Gln-16.	S0002: 1 and H0423: 1.		
HMSIT63	745068	3466	150 - 329	13218		H0069: 1 and S0002: 1.		
HMSIT73	708077	3467	76 - 222	13219	Val-1 to Ser-8, Pro-19 to Trp-25.	S0002: 2		
HMSIU50	706363	3468	29 - 178	13220	Glu-1 to Gly-8, Lys-20 to Val-49.	S0002: 2		
HMSIV17	712318	3469	286 - 519	13221		S0002: 2		
HMSJA36	685633	3470	158 - 256	13222		H0083: 1 and S0002: 1.		
HMSJA69	745227	3471	223 - 336	13223		S0002: 2		
HMSJB02	920065	3472	225 - 566	13224	Ser-31 to Ala-44.	S0002: 3		
HMSJB64	969637	3473	69 - 308	13225		S0002: 1 and S0426: 1.	17	
HMSJB83	781172	3474	107 - 316	13226	Pro-1 to Phe-9, Ser-43 to His-50.	S0002: 2		
HMSJB93	676414	3475	144 - 359	13227	Thr-6 to Lys-15.	S0002: 2		
HMSJE47	928252	3476	81 - 230	13228		S0002: 1 and S0426: 1.		
HMSJE52	868167	3477	96 - 335	13229	Glu-32 to Gly-41.	S0002: 2		
HMSJE69	513164	3478	609 - 307	13230		H0457: 3 and S0002: 1.		
	855775	9574	229 - 471	19326	Arg-49 to Trp-56.			
HMSJH79	760667	3479	211 - 432	13231	Ala-3 to Arg-26.	S0002: 1 and H0445: 1.		
HMSJI22	674557	3480	3 - 230	13232		H0179: 1 and S0002: 1.		
HMSJJ24	928152	3481	306 - 467	13233	Thr-1 to Val-6.	H0370: 1, H0318: 1 and S0002: 1.		
HMSJJ83	781094	3482	320 - 177	13234	Ser-12 to His-18.	S0002: 2 and S0053: 2.		
HMSJL41	922753	3483	1 - 114	13235		H0370: 1 and S0002: 1.		
HMSJM33	702408	3484	74 - 424	13236	Asp-13 to His-22, Pro-41 to Lys-46,	S0002: 2		

					Pro-83 to Leu-88.			
HMSJO36	708084	3485	208 - 339	13237	Leu-13 to Glu-26.	S0002: 3		
HMSJO44	716600	3486	3 - 392	13238	Arg-7 to Leu-14, Ser-31 to Gln-37, Glu-44 to Ser-56, Gly-79 to Lys-87, Ala-92 to Arg-99, Pro-116 to Gln-127.	S0002: 1 and H0436: 1.		
HMSJR07	854106	3487	270 - 449	13239	Leu-11 to Thr-22.	H0075: 1, S0002: 1 and L0363: 1.		
HMSJR27	855760	3488	352 - 215	13240		L0749: 2, H0264: 1 and S0002: 1.		
HMSJR41	967070	3489	130 - 255	13241	Asp-6 to Thr-12.	S0002: 2		
HMSJR74	710402	3490	87 - 413	13242	Thr-1 to Val-18.	H0556: 2, H0265: 1 and S0002: 1.		
HMSJT11	965007	3491	22 - 1185	13243	Gln-15 to Val-23.	S0002: 3, L0777: 3, L0598: 2, L0521: 2, L0794: 2, L0731: 2 and L0768: 1.		
HMSJT60	733379	3492	63 - 191	13244	Asn-13 to Pro-19, Ser-34 to Phe-41.	S0002: 2		
HMSJT70	756465	3493	88 - 300	13245	Ala-4 to Leu-10.	S0116: 1 and S0002: 1.		
HMSJT79	954141	3494	3 - 221	13246	Arg-63 to Ser-72.	S0002: 3		
HMSJU28	686664	3495	38 - 214	13247		S0002: 2		
HMSJV67	751602	3496	68 - 397	13248	Leu-31 to Leu-37, Ser-57 to Trp-66, Thr-83 to Phe-95.	S0002: 2		
HMSJW12	902568	3497	2704 - 3138	13249	Arg-15 to Tyr-26, Asn-56 to Lys-63, Cys-90 to Leu-95, Ser-129 to Gly-134, Pro-137 to Glu-143.	S0002: 1 and S0426: 1.		
	970011	9575	1181 - 1399	19327				
	970012	9576	395 - 3	19328	Arg-15 to Tyr-26, Asn-56 to Lys-63, Cys-90 to Leu-95.			
HMSJW19	744990	3498	2 - 535	13250	Arg-27 to Pro-32.	AR089: 9, AR061: 4		

						S0002: 1 and S0426: 1.		
HMSJW25	678096	3499	337 - 546	13251	Trp-1 to Ser-15, Gln-23 to Gly-29.	H0589: 1 and S0002: 1.		
HMSJZ11	861381	3500	259 - 468	13252		S0344: 1 and S0002: 1.		
HMSKB02	920056	3501	203 - 436	13253	Pro-16 to Trp-24.	S0002: 2		
HMSKB24	855883	3502	32 - 208	13254		S0002: 3		
HMSKC56	733388	3503	197 - 409	13255	Glu-13 to Glu-21.	S0002: 2		
HMSKC66	783028	3504	129 - 338	13256	Ser-28 to Cys-33.	S0002: 2		
HMSKC90	675055	3505	2 - 178	13257		S0002: 3		
HMSKF32	699273	3506	142 - 237	13258		S0002: 2		
HMSKF62	966084	3507	1 - 249	13259	Arg-10 to Ala-17.	H0556: 1 and S0002: 1.		
HMSKG23	675885	3508	3 - 170	13260	His-14 to Ser-27.	S0002: 2		
HMSKI08	959413	3509	70 - 522	13261		H0581: 1 and S0002: 1.		
HMSKQ60	495734	3510	525 - 274	13262		H0271: 1 and S0002: 1.		
	953525	9577	107 - 346	19329	Lys-43 to Met-49.			
HMSKS66	413201	3511	90 - 266	13263		S0002: 2		
HMSKU36	966289	3512	3 - 386	13264	Thr-14 to Thr-20, Asn-92 to Lys-99, Arg-120 to Arg-128.	S0002: 2 and H0543: 1.		
HMSKU90	920151	3513	385 - 648	13265	His-69 to Arg-78.	S0002: 1, S0052: 1 and S0428: 1.		
HMSKZ29	690662	3514	274 - 50	13266	Lys-8 to Ser-13.	H0318: 1 and S0002: 1.		
HMSLB94	773812	3515	187 - 330	13267		S0002: 2		
HMSME83	950970	3516	251 - 523	13268		H0271: 1 and S0426: 1.		
HMSMF12	948393	3517	286 - 456	13269		S0426: 2 and H0580: 1.		
HMSMG02	915179	3518	8 - 226	13270	Ser-30 to Phe-38, Pro-46 to Ala-56.	S0426: 2		
HMSMH05	931095	3519	109 - 318	13271		S0053: 2 and S0426: 1.		
HMSMI12	969636	3520	60 - 359	13272		S0426: 2		
HMSMK12	841898	3521	466 - 326	13273	Gly-29 to Phe-39.	S0426: 1 and S0216: 1.		
HMSML27	870008	3522	124 - 279	13274		H0272: 1 and S0426: 1.		
HMSMN04	926746	3523	42 - 113	13275		S0426: 2		
HMSMN23	932548	3524	358 - 639	13276	Arg-2 to Thr-9.	H0179: 1, S0426: 1 and L0748: 1.		
HMSMQ05	931022	3525	29 - 109	13277		S0426: 2		

HMSMV92	934140	3526	291 - 515	13278		S0426: 2		
HMSMX68	861333	3527	233 - 424	13279	Ser-48 to Leu-56.	H0402: 2 and S0426: 2.		
HMSNA44	861293	3528	171 - 629	13280	His-13 to Lys-23, Asp-33 to Gly-39.	S0426: 2	22q13.31	250100, 250800, 250800
HMSNR30	968716	3529	260 - 382	13281		T0002: 1, S0426: 1 and L0748: 1.		
HMSNR92	861314	3530	126 - 488	13282	Thr-30 to Arg-36, His-43 to Ser-50, Ser-69 to Leu-75, Ala-80 to Gly-94.	S0426: 2		
HMSNX38	974321	3531	412 - 597	13283		S0426: 1 and H0521: 1.		
HMSOA29	953329	3532	164 - 361	13284	Glu-28 to Glu-35, Arg-44 to Pro-52.	S0002: 2, S0134: 1 and S0426: 1.		
HMSOA34	936036	3533	390 - 605	13285	Pro-6 to Pro-15.	S0114: 1 and S0426: 1.		
HMSOB43	961779	3534	103 - 204	13286	Gln-10 to Tyr-27.	H0255: 1, H0306: 1 and S0426: 1.		
HMSOC76	916807	3535	153 - 251	13287	Tyr-1 to Lys-9.	H0402: 1 and S0426: 1.		
HMSOE03	922858	3536	282 - 413	13288		S0426: 1 and H0422: 1.		
HMSOG57	861298	3537	270 - 530	13289	Tyr-1 to Ser-9.	S0426: 2 and L0748: 1.		
HMSOM08	958216	3538	2 - 247	13290	Pro-29 to Arg-34, Lys-68 to His-73.	H0063: 1 and S0426: 1.		
HMSON02	918397	3539	330 - 136	13291		S0140: 1, S0426: 1 and L0369: 1.		
HMSON77	861288	3540	625 - 407	13292		S0426: 2		
HMSOO10	963389	3541	526 - 356	13293		S0114: 1 and S0426: 1.		
HMSOP01	915083	3542	35 - 211	13294	Gln-50 to Val-55.	S0426: 2 and S0002: 1.		
HMSOQ75	959856	3543	3 - 257	13295	Ala-9 to Phe-15.	H0250: 1 and S0426: 1.		
HMSOU16	948198	3544	2 - 253	13296		H0179: 1, S0002: 1 and S0426: 1.		
HMSOU92	947760	3545	268 - 74	13297		AR089: 10, AR061: 5 S0426: 2 and L0596: 2.		
	948130	9578	564 - 262	19330				
HMSOV17	835834	3546	311 - 508	13298		S0426: 1, L0748: 1 and H0543: 1.		
HMSOW85	827823	3547	79 - 312	13299	His-8 to Gly-18, Ser-64 to His-77.	H0341: 1 and S0426: 1.		

HMSOX47	948202	3548	56 - 541	13300	His-8 to Gly-18, Asp-31 to Arg-37, Ala-70 to Pro-75, Arg-115 to Val-122.	S0426: 2		
HMSOY61	836082	3549	13 - 249	13301		S0426: 1 and H0521: 1.		
HMSOZ02	918388	3550	417 - 115	13302	Ser-12 to Phe-26, Ser-84 to Arg-96.	L0749: 4, L0748: 2, L0731: 2, H0657: 1, S0426: 1, L0777: 1 and H0423: 1.		
HMSOZ19	958680	3551	183 - 290	13303		S0426: 2 and H0591: 1.		
HMSPA04	922863	3552	136 - 345	13304	Lys-1 to Lys-26, Lys-33 to Asp-44.	S0426: 2		
HMSPA09	948209	3553	3 - 161	13305	Lys-18 to Ser-24, Pro-38 to His-44, Gln-46 to Cys-53.	S0002: 1 and S0426: 1.		
HMSPA41	951971	3554	66 - 638	13306	Ala-17 to Gly-25, Thr-27 to Gly-40, Pro-46 to Pro-66, Pro-77 to Pro-85, Pro-88 to Ala-106.	S0426: 1 and H0542: 1.		
HMSPB03	922853	3555	243 - 392	13307	Arg-1 to Arg-8, Val-12 to Gly-18, Ala-36 to Pro-50.	S0426: 3		
HMSPB63	861264	3556	434 - 604	13308		S0002: 1 and S0426: 1.		
HMSPE92	948104	3557	53 - 238	13309	His-8 to Gly-18, Gly-31 to Ser-38, Met-54 to Ser-61.	H0305: 1 and S0426: 1.		
HMVAJ53	728009	3558	3 - 401	13310		S0212: 1 and H0318: 1.	5q34	109690, 109690, 123101, 180071, 600584
HMVAL74	684574	3559	395 - 532	13311	Lys-1 to Thr-6.	S0212: 1 and H0255: 1.		
HMVAT26	789064	3560	1 - 174	13312	Pro-53 to Cys-58.	S0212: 1 and H0422: 1.		
HMVAW08	962197	3561	178 - 267	13313		S0212: 2	7q22-q31	126650, 126650, 154276, 164860, 173360, 173360, 180105, 222800, 246900, 274600,

								274600, 602081, 602136, 602136, 602136, 602447
HMVAY55	574215	3562	1 - 240	13314	Gln-1 to Gly-17, Arg-27 to Glu-35, Gly-41 to Gly-50, Pro-59 to Arg-74.	H0271: 2, L0747: 2, S0212: 1, L0788: 1, H0521: 1 and L0740: 1.	5q12-q13	126060, 143200, 143200, 181510, 253200, 268800, 268800, 600354, 600354, 600354, 600887
HMVBA36	698060	3563	113 - 304	13315	Glu-15 to Lys-26, Asn-37 to Thr-64.	S0212: 1 and H0421: 1.		
HMVBD70	735696	3564	86 - 277	13316	Ser-3 to Glu-12, Ser-48 to Phe-53.	S0212: 1 and H0580: 1.		
HMVBD84	782910	3565	38 - 268	13317		S0212: 1 and H0612: 1.		
HMVBO01	916072	3566	1 - 336	13318	Ser-5 to His-11.	L0777: 2, S0212: 1, H0402: 1, L0055: 1 and L0603: 1.		
HMVBO34	735873	3567	970 - 764	13319	Ser-1 to Asp-8.	S0114: 1, S0212: 1 and L0769: 1.		
HMVBU26	681408	3568	162 - 341	13320	Leu-15 to Ser-20.	S0212: 1, H0486: 1, L0659: 1 and L0757: 1.		
HMVBV30	861196	3569	123 - 272	13321	Arg-9 to Arg-23.	S0212: 1, T0071: 1 and L0750: 1.		
HMVBW94	883659	3570	2 - 214	13322	Ala-9 to Pro-18.	S0212: 2		
HMVCG47	719936	3571	317 - 412	13323	His-4 to His-10.	S0212: 2		
HMVCO55	868146	3572	2 - 232	13324	Met-8 to Gly-13, Glu-19 to Cys-26.	S0212: 2		
HMVCR47	661425	3573	340 - 459	13325		S0212: 2		
HMVCT75	715950	3574	2 - 151	13326		S0212: 1 and H0318: 1.		
HMVCX10	963828	3575	289 - 474	13327	Tyr-11 to Gln-20.	S0212: 2 and L0756: 1.		
HMVCY46	662311	3576	252 - 371	13328		S0212: 2		
HMVCZ64	767714	3577	130 - 315	13329	Pro-17 to Trp-23.	S0212: 2		
HMVDA11	861185	3578	3 - 215	13330	Arg-1 to Met-6, Asn-31 to Ser-37.	S0212: 2		
HMVDA30	691608	3579	40 - 204	13331		S0212: 1 and H0423: 1.		
HMVDF10	970480	3580	3 - 362	13332	Lys-45 to Val-61, Ser-78 to Arg-88.	S0212: 1 and H0581: 1.		

HMVDF66	915638	3581	3 - 104	13333	Leu-1 to Trp-20.	S0212: 2 and S0002: 1.		
HMVDF83	701907	3582	103 - 285	13334	Met-1 to His-26, Tyr-54 to Phe-60.	S0212: 2		
HMVDG76	861179	3583	1 - 183	13335		S0212: 2		
HMVDH06	934778	3584	34 - 126	13336		S0212: 4, H0580: 1 and L0604: 1.		
HMVDI38	709243	3585	533 - 697	13337		L0748: 5 and S0212: 2.		
HMVDJ75	710475	3586	357 - 557	13338		S0212: 2		
HMVDR49	722581	3587	196 - 381	13339		H0271: 2 and S0212: 1.		
HMVDT07	952488	3588	226 - 462	13340	Pro-53 to Thr-60.	S0212: 2 and L0750: 1.		
HMVDU16	904807	3589	1120 - 1341	13341	Pro-22 to Ser-28, Thr-43 to Lys-74.	AR050: 16, AR051: 2, AR089: 2, AR061: 1, AR054: 1 L0748: 4 and S0212: 2.		
HMVDW09	625070	3590	3 - 320	13342	Arg-16 to Leu-22, Pro-60 to Pro-67.	S0212: 2		
HMVDZ70	878247	3591	1 - 873	13343	Arg-1 to Arg-6, Gln-39 to Ile-45, Ser-48 to Tyr-55, Glu-103 to Thr-114, Arg-132 to Ala-150, Glu-167 to Gln-175.	S0212: 2		
HMVEA91	774609	3592	112 - 2	13344	Arg-1 to Tyr-7.	S0212: 2		
HMVEF33	701908	3593	69 - 338	13345	Ile-31 to Gln-37.	S0212: 2		
HMVEH72	750931	3594	2 - 304	13346	Leu-8 to Glu-15, His-23 to Ala-36, Pro-38 to Gly-43, Arg-68 to Asp-76.	S0212: 2		
HMWBE16	527509	3595	140 - 256	13347	Lys-2 to Tyr-10.	H0341: 2		
HMWBG29	890878	3596	105 - 263	13348	Pro-4 to Ser-9.	H0341: 2, L0606: 1, H0521: 1 and L0748: 1.		
HMWBI47	527593	3597	80 - 340	13349	Gly-19 to Gly-26.	H0341: 4	14q32.1	107280, 107280, 107400, 107400, 122500, 186960, 245200, 601841
HMWBK07	954098	3598	3 - 56	13350	Thr-11 to Lys-18.	H0341: 2		

HMWBK24	524357	3599	3 - 161	13351	Pro-3 to Ala-14.	H0341: 1 and S0053: 1.		
HMWBM09	967687	3600	2 - 124	13352	Lys-18 to Ser-23, Gly-28 to Ile-37.	H0341: 2		
HMWBN56	745698	3601	2 - 289	13353	Gly-43 to Pro-51.	H0341: 1 and S0278: 1.		
HMWBO07	839560	3602	44 - 250	13354	Cys-19 to Glu-26, His-63 to Tyr-69.	H0341: 2		
HMWBR86	731650	3603	61 - 192	13355		H0556: 1 and H0341: 1.	7q22-q31.1	126650, 126650, 150240, 154276, 173360, 173360, 180105, 222800, 246900, 602136, 602136, 602136, 602447
HMWBV45	861152	3604	150 - 317	13356		H0341: 3		
HMWCG29	723779	3605	86 - 226	13357		H0341: 2		
HMWCQ09	924634	3606	48 - 338	13358	Pro-7 to Gly-21, Ser-57 to Lys-63, Ser-91 to Gln-97.	H0341: 1, H0402: 1 and H0069: 1.		
HMWCQ58	738372	3607	3 - 125	13359		H0341: 1 and H0521: 1.		
HMWCV08	960083	3608	2 - 301	13360	Ala-37 to Arg-48.	H0341: 1 and S0002: 1.		
HMWCX60	531395	3609	3 - 104	13361	Tyr-27 to Cys-32.	H0341: 2		
HMWDD54	932261	3610	80 - 457	13362		H0341: 2		
HMWDD75	800023	3611	2 - 184	13363		H0341: 1 and H0090: 1.		
HMWDF88	906769	3612	147 - 362	13364	Trp-14 to Asp-27.	AR061: 207, AR089: 155 H0341: 1 and H0083: 1.		
HMWDH23	676216	3613	2 - 142	13365		H0341: 2		
HMWDL52	921603	3614	10 - 327	13366	Pro-37 to Phe-51, Arg-63 to Leu-68, Arg-71 to Ser-77.	H0341: 2		
HMWDQ83	558021	3615	119 - 289	13367	Lys-1 to Asp-14.	H0341: 2		
HMWDW60	712083	3616	1 - 315	13368	Pro-16 to Leu-23, His-26 to His-31, Pro-34 to Thr-50, Pro-53 to Ala-68, Lys-71 to Ser-79, Asn-84 to Gly-90.	H0341: 1 and H0486: 1.		

HMWDY93	573513	3617	168 - 332	13369		H0341: 2		
HMWDZ73	573754	3618	121 - 234	13370		H0341: 1 and H0318: 1.		
HMWDZ77	573494	3619	1 - 138	13371	Asp-9 to Gly-15, Ser-34 to His-42.	H0341: 2 and L0542: 1.		
HMWEE04	709334	3620	3 - 326	13372		H0341: 2		
HMWEG24	781017	3621	317 - 478	13373		H0341: 1 and H0318: 1.		
HMWEJ73	767384	3622	3 - 374	13374	His-1 to Lys-13, Glu-19 to Lys-40, Glu-42 to Ala-65, Pro-71 to Thr-92.	H0341: 2		
HMWEK11	967362	3623	561 - 824	13375	Gly-26 to Ser-34.	H0271: 2, H0341: 1 and L0438: 1.		
HMWEK39	573604	3624	81 - 248	13376	Arg-1 to Gly-6.	H0341: 2		
HMWEM85	783973	3625	179 - 322	13377		H0341: 2		
HMWEP07	953749	3626	1 - 819	13378		L0747: 2, H0341: 1, H0543: 1 and H0423: 1.		
HMWES31	861129	3627	89 - 316	13379		H0341: 2		
HMWFC21	752826	3628	2 - 376	13380	Gly-1 to Tyr-18, Pro-20 to Trp-26, Leu-31 to Met-39, Arg-63 to Leu-75.	H0341: 2 and H0543: 1.		
HMWFE01	917150	3629	1 - 135	13381	Trp-3 to Ser-9.	H0341: 2		
HMWFH47	738220	3630	36 - 485	13382		H0341: 1, T0041: 1 and L0748: 1.		
HMWFI54	573598	3631	38 - 274	13383	Ser-29 to Trp-35.	H0341: 2		
HMWFO10	954979	3632	1 - 189	13384		H0556: 1 and H0341: 1.		
HMWFP33	702618	3633	1 - 213	13385		H0341: 2 and L0803: 1.		
HMWFP60	576880	3634	134 - 325	13386	Asn-4 to Val-10.	H0341: 1 and S0053: 1.		
HMWFQ91	573551	3635	3 - 263	13387	Lys-1 to Lys-6.	H0341: 2		
HMWFR11	967371	3636	127 - 2	13388		H0341: 1 and H0543: 1.		
HMWFU05	861119	3637	106 - 312	13389		H0341: 1 and H0306: 1.		
HMWFU85	659578	3638	299 - 418	13390	Phe-5 to Gly-10.	H0591: 3, H0543: 2, H0341: 1, L0657: 1 and L0759: 1.		
HMWFW75	727236	3639	2 - 112	13391		H0341: 1 and H0423: 1.		
HMWGC08	959838	3640	110 - 262	13392		H0341: 2		

HMWGF22	861104	3641	27 - 311	13393		H0341: 3		
HMWGG55	920575	3642	2 - 172	13394	Gln-2 to Tyr-28.	H0341: 2	12q13	107777, 123940, 139350, 139350, 148040, 148041, 148043, 148070, 231550, 600194, 600231, 600536, 600808, 600956, 601284, 601769, 601769, 601928, 602116, 602153
HMWGK95	576885	3643	109 - 255	13395	Pro-12 to Thr-20.	H0341: 2		
HMWGQ80	575822	3644	207 - 365	13396	Pro-16 to Pro-32, Asp-39 to His-44.	L0748: 3, L0754: 2, H0341: 1 and H0402: 1.		
HMWGT07	953454	3645	2 - 520	13397	Arg-9 to Trp-16.	H0341: 1 and H0090: 1.		
HMWGU64	823460	3646	227 - 427	13398	Trp-31 to Arg-37, Gly-46 to His-52.	H0341: 2	9p13	230400, 250250
HMWGV63	576854	3647	2 - 130	13399		H0341: 2		
HMWGX38	709249	3648	89 - 256	13400	Trp-1 to Ser-8, Ile-21 to Leu-32, Ala-46 to Lys-56.	H0341: 2	1q21-q22	104770, 107670, 110700, 135940, 145001, 146790, 152445, 152445, 159001, 159440, 159440, 159440, 174000, 179755, 182860, 182860, 182860, 186780, 191030, 191315, 230800, 230800, 266200, 600897, 600923, 601105, 601412, 601652, 602491
HMWGX50	959293	3649	311 - 745	13401		H0341: 2		
HMWHA91	684346	3650	104 - 247	13402		H0341: 2		
HMWHB03	861108	3651	189 - 374	13403	Arg-9 to Ser-14.	H0341: 2		

HMWHF58	584538	3652	248 - 418	13404		H0341: 2		
HMWHM30	676413	3653	106 - 333	13405		H0341: 1 and H0272: 1.		
HMWHN70	851334	3654	22 - 354	13406	Ala-12 to Ser-19, His-44 to Tyr-53, Leu-74 to Glu-88.	H0341: 3		
HMWHS25	678166	3655	25 - 321	13407	Thr-51 to Glu-60, Ser-65 to Asn-75.	H0265: 1 and H0341: 1.		
HMWHZ50	724431	3656	281 - 508	13408		H0341: 2		
HMWIA18	424132	3657	1 - 225	13409		H0341: 1 and H0521: 1.		
HMWIF10	964707	3658	345 - 82	13410	Ser-1 to Ala-6, Lys-12 to Gly-17, Cys-25 to Ile-33.	H0305: 2, L0749: 2, H0341: 1 and L0759: 1.		
HMWIL67	791275	3659	2 - 253	13411	Cys-5 to Gly-19, Thr-28 to Leu-35, Ala-37 to Lys-44.	L0745: 3, H0341: 1, L0746: 1 and H0444: 1.		
HMWIM26	681845	3660	127 - 249	13412		H0341: 2		
HMWIQ47	653198	3661	86 - 325	13413	Ser-49 to Gln-54.	H0341: 2 and S0052: 1.		
HMWIS96	746475	3662	420 - 692	13414	Gly-16 to Gly-27.	H0556: 3 and H0341: 1.		
HMWIT95	793450	3663	3 - 413	13415	Leu-7 to Gly-13, Leu-35 to Val-41, Ala-52 to Gln-66, Glu-72 to Leu-87, Trp-125 to Asp-130.	H0341: 1 and H0402: 1.	15q22	102578, 109700, 151670, 154550, 601780
HMWIU48	917690	3664	2 - 451	13416	Ala-1 to Ile-11, Gly-27 to Gly-33, Arg-40 to Arg-47, Pro-76 to Trp-81, Arg-121 to Gly-126, Gly-129 to Cys-138, Gln-141 to Phe-148.	H0341: 1, H0264: 1 and L0748: 1.	1q21	104770, 107670, 110700, 135940, 145001, 146790, 152445, 152445, 159001, 174000, 179755, 182860, 182860, 182860, 191315, 230800, 230800, 266200, 600897, 601105, 601412, 601652, 602491
HMWIV48	795649	3665	40 - 171	13417		H0341: 1, H0306: 1 and		

						H0580: 1.		
HMWIX21	670972	3666	82 - 213	13418	Ser-1 to Phe-11, Gln-32 to Arg-37.	H0341: 1, H0090: 1 and L0779: 1.		
HMWIZ03	924227	3667	79 - 264	13419	Pro-35 to Pro-40, Ser-51 to Leu-61.	H0341: 1, H0264: 1 and S0002: 1.		
HMWJB29	668700	3668	137 - 352	13420		H0341: 2		
HMWJC76	688926	3669	99 - 287	13421		H0341: 2		
HMWJF10	964705	3670	3 - 353	13422	Pro-7 to Ala-14, Pro-34 to Gly-39.	H0341: 2		
HMWJG85	918724	3671	2 - 424	13423	Ala-1 to Gly-8, Thr-11 to Gly-18, Asp-23 to Asn-30.	H0341: 1, H0609: 1, H0271: 1, H0521: 1 and L0581: 1.	12q23-q24.1	124200, 147440, 160781, 181405, 235800, 261600, 261600, 600175, 601406, 601620, 601621
HMWJH15	757807	3672	106 - 204	13424		H0341: 2		
HMXAA03	964494	3673	1 - 72	13425		H0552: 2		
HMXAA08	959267	3674	11 - 172	13426	Pro-26 to Ser-36.	H0552: 4		
HMXAA39	670501	3675	42 - 224	13427	Arg-21 to Arg-37.	H0552: 4, L0761: 3, H0583: 2, H0556: 1, H0650: 1, L0785: 1, S0002: 1, L0655: 1, H0445: 1 and H0543: 1.		
HMXAA56	733331	3676	3 - 56	13428		H0552: 5		
HMXAB21	714384	3677	2 - 97	13429		H0552: 4		
HMXAB69	661849	3678	1 - 150	13430		H0552: 6		
HMXAC70	964492	3679	5 - 151	13431		H0552: 12		
HMXAC83	780385	3680	1 - 117	13432	Pro-8 to His-21.	AR054: 5, AR051: 2, AR050: 1 H0552: 4		
HNEAB76	674781	3681	73 - 174	13433		H0179: 1, H0063: 1 and S0426: 1.		
HNEAC51	523767	3682	3 - 272	13434	Pro-74 to Gly-79.	H0179: 3, L0749: 2 and L0791: 1.		
HNEAJ21	671370	3683	21 - 125	13435	Leu-1 to Lys-10.	H0179: 1 and H0542: 1.		
HNEAJ57	735083	3684	106 - 258	13436		H0486: 1 and H0179: 1.		
HNEAK41	711557	3685	72 - 239	13437	Lys-6 to Asn-12.	H0179: 1 and S0002: 1.		